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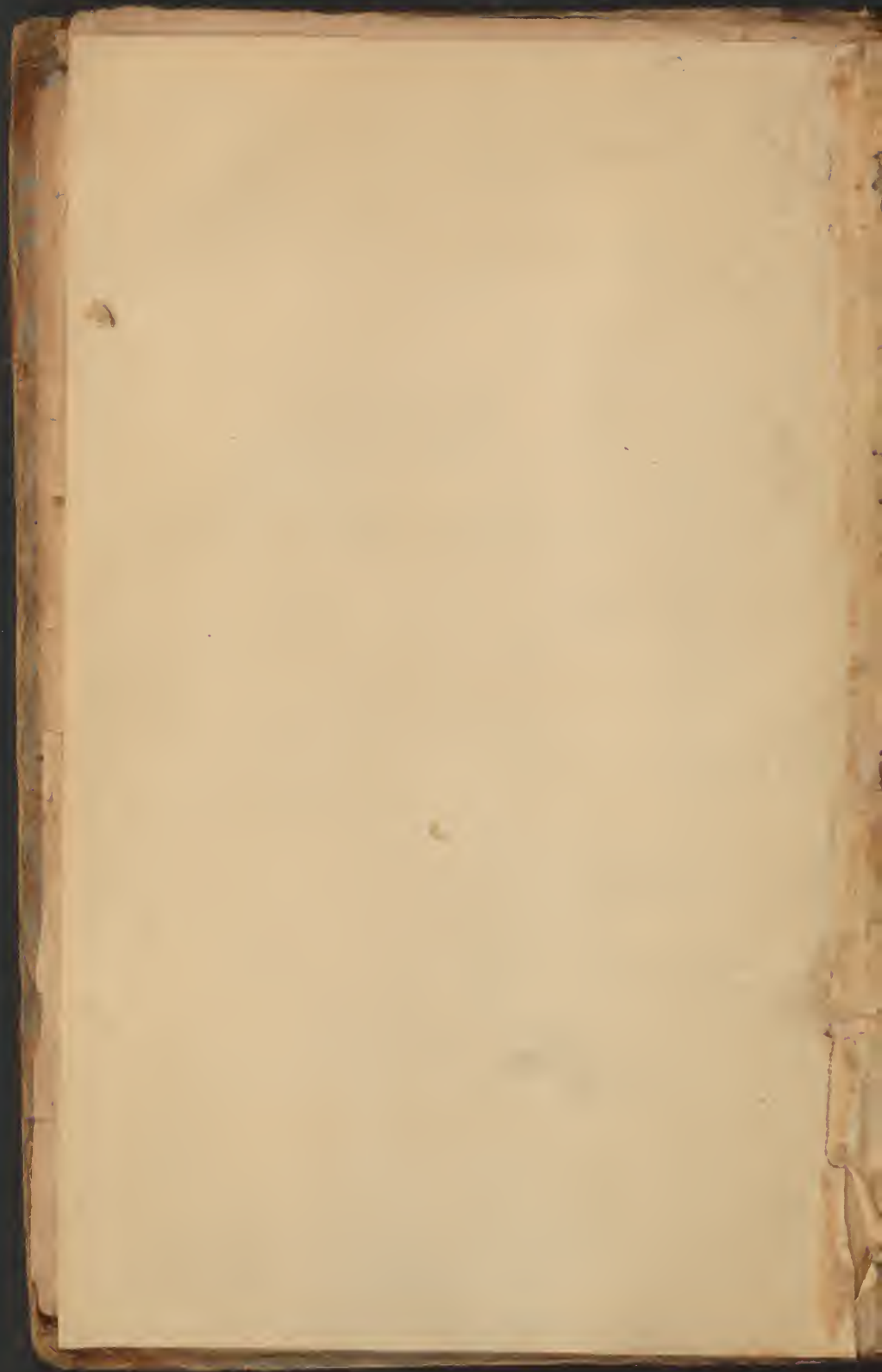
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Notes
on the
Materia Medica
taken from
A Course of Lectures
Delivered
By Adam Kuhn M.D.
Professor of Materia Medica
in the University of
Philadelphia

121874

by
Sam^l Houltnery M.D.

MD.CC.LXXXVI

1786

1811.

Wm. O. Smith

1
Notes taken from a course of lectures on
the Materia Medica Delivered by Adam
Fleetham M.D. began November 2nd 1786ⁱⁿ
Lectures 1st & 2nd

Contained a general history of the art of Phys-
ic, from its first origin to the present day -
He gave first an account of the art, which he
observed could not be ascribed to any one per-
-son as the inventor, as it is not possible for
the sagacity of one man to acquire knowledge
sufficient to deserve the name as an art -
Medicine seems to be covered with man, he
from his first creation must have been
subject to Diseases, Pain and Sickness would
urge him to seek Relief. Instinct would discover
some Remedies. Trials at Random would discover
others, and the observing Spontaneous Cures
must have led to an Imitation of them,
But the long life of the first Inhabitants of
the world would give ample room for
Observation, and the knowledge thus obtain-
-ed would be handed down from father to son
and at length constituted an art of
Physic - - - - - But

2 But untill Physic began to be Cultivat-
ed under Particular Persons, it must have
been very rude.

The first Regular accounts we have of this
art are from Egypt. Hermes Trismegistus
wrote books upon Physic which he order-
ed his Successors to follow without deviation.

He confined the Different Diseases to different
Persons, Enjoining them not to Practise out
of the Disease allotted them and in Case they
did, if the Patient died, they were Punished
with Death. From Egypt Physic passed into
Greece and got into the hands of the Priests
of Asclepius and we may easily imagine
a great deal of Priestcraft to have been
mixed with Medicine. This was the state
of Medicine till the time of Hippocrates
of Cos who lived about 400 Years before
Christ. His writings if taken together
appear ridiculous and absurd, but if Se-
lected some are of the utmost utility. He
was the founder of Dogmatism. He lived
to the age of 100 Years and died one Year
before the birth of Alexander the great. about

About 207 Years before Christ Scapion lived, the founder of the Empiric Sect, who rejected all Reasoning in Diseases, and asserted that Experience alone was to be trusted to. About 200 Years before Christ Archagathus came to Rome and had good success, but on account of his Surgical operations which all Roman Nations have an aversion to, he together with all the Physicians was banished the City. In the next Century Aesculapius came to Rome and gained a great deal of Reputation by his gentle address and easy medicine.

In the Second Century after Christ Galen arose, a man of great abilities, he suppressed the Empirics and Methodists and restored the Ancient Dogmatism of Hippocrates, upon whose works he has commented and has taken a great deal of pains to render him clear. — He wrote 500 Volumes and has so connected them as to form a complete system of Physic. Galen long reigned the tyrant of Medicine, and it was long held to be a species of Impiety to differ from him. In the Seventh Century after Christ

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The Savage Arabs burnt the famous library of
alexandria. The Arabs neglected all learning
till the reign of the Caliphs of the race of
Abassides when learning began to be encour-
aged and the Greek authors to be translated, The
first books they got were Aristotle and Galen.
They were servile imitators of Galen and of
Consequence little improvement could be
expected from them. They did nothing but
comment upon him, adding only such
Diseases as were peculiar to their Country and
were unknown to the Greeks, as the small
pox was not known in Europe before the institution
of the Crusades for the recovery of the holy land,
They added the Symps to the Material Medica,
the art of making sugar is an Arabian
invention. — In the fifteenth century
Constantinople was taken by the Turks, with
the same cruelty was exercised as before
at Alexandria. This Constantinian catastrophe
which it was thought would have entirely
put a stop to Learning, unexpectedly proved
the cause of its revival, for the Greeks fled
into Italy with their Manuscripts and created
schools.

Schools. Printing also was about this time 5
invented. —

The Doctrines of Galen continued to prevail till
about the beginning of the 16th Century, when
Paracelsus first began to oppose them, and to
substitute his own in their room. He was suc-
ceeded by Van Helmont who was a person of learn-
ing, but a wrong headed Enthusiast, to him be-
longed the merit of Exploding the Doctrines of
Galen, but he unhappily substituted his
own worse ones in their room. He rejected
Blood Letting and prescribed a hot regimen
in fevers. He at length fell a Sacrifice to
his own theory and died of a Pleurisy —
In the middle of the 17th Century the Circulation
of the Blood was discovered by Harvey. after
this many new theories were introduced
into Medicine, some Physicians considered
the body as a mere hydraulic Machine
and attempted to account for every thing
on the Principles of Mathematics —
Hahl from some hints thrown out by
Plato Dolsius, Webster and others supposed
the Rational soul to Preside over the System
He therefore gave nothing but weak Medi-
cines — — — The

6 The systems of Hoffman and Stahl who were contemporaries and rivals are still received in Germany —

Francis de la Boe Sylvius, who was professor at Leyden, supposed fevers to be occasioned by an acid and Prescribed alkalis in them, This opinion is still received by some, We may readily conceive how many thousands must have fallen a sacrifice to those false theories

Lect^{ure} 3rd

Having given a general sketch of the History of Physic, we shall now proceed to the branch in which we are to be engaged — We shall deliver the whole we have to say under 4 heads —

- 1st The Knowledge of the Subjects Employed and their Distinction from all others —
- 2nd Their virtue in Medicine or Diet —
- 3rd The foundation of these Virtues in their sensible qualities or Chemical properties —
- 4th Their Pharmaceutical Treatment or their artificial preparation for the Purpose they are intended to answer —

As to the first the Substances Employed are of two kinds natural or Artificial, a Knowledge of

of Natural must be derived from a Knowledge of
of Natural History, which tho' neglected is of great
Importance, Had the Ancients been acquainted
with it we should not have been Engaged in
Disputes Concerning the Substances Employed
by them —

The virtues of the Medicines as laid down under
the 2nd Head will take up the greatest part of
this Course, Describing these Virtues various
methods have been pursued, some describe
them as suited to Particular Indications, others
to Particular Diseases, the first is of great Utility,
the last is attended with great uncertainty —

The following books seem Particularly Calculated
to assist the Student in his Inquiries on this
Subject. —

Lewis in the New Dispensatory has given
us an useful work, but it is rather the loose
disjoined Materials, than a proper System
of the Materia Medica. He follows the Alphabetical
order, by which means his Subject
is so interrupted that it is impossible for
the Reader to follow him regularly, and he
is therefore fit only for Occasional Consultations,
Geoffroy has first Divided the Subject as
got from the three Kingdoms and in the
Vegetable

Dr Vegetable he again subdivides them according to the parts of the plants made use of, a Root, Herb, Bark &c But in treating of the Individuals he has fallen into the same error and is liable to the same objections with the author of the New Dispensatory, His first and second Volumes are the Best —

Linnaeus has followed the Botanical order in describing the virtues of the Substances belonging to the Materia Medica, this is somewhat better, for plants of the same order or genus have frequently been found to correspond in Medical Virtues, But this does not obtain universally: —

*Carterhus ranks them according to their sensible Qualities, By this means you have a number of Substances connected which correspond in Medical Virtues, but this plan is not quite sufficient and he is obliged in many places to follow indications. — This method is also pursued by the celebrated Newman —

Dr Cullen distributes the medicines according to the indications they serve and therefore Express their Utility in the various diseases. — This

This plan is undoubtedly the best, and it is 9
this I shall follow in this Course of Lectures —
This *Materia Medica* published here some years
ago, being taken from the notes of some per-
sons who attended his Lectures, is not so per-
fect as could be wished, but I would advise
you all to have it, as I shall make frequent
references in the Course of these Lectures —

As there are no Lectures on the Practice of Physic
this year, I shall intersperse Practical Remarks
wherever there is an opportunity, and as there
are some Disorders which cannot properly be
brought in in this manner, I shall Particu-
larly consider them after the Course on the
Materia Medica — I find myself necessitat-
ed here to give you my opinion with re-
gard to the operation of Medicines in order
that you may the better understand me
hereafter — — — — —

The body is Divisible into three parts, the
simple fibre, the fluids, and the *Solida viva*
or moving fibres. These last are Endued with
both sensibility and irritability, with which
the two former are not — — — — —

The Extent of the Nervous power in the
System

10 System is very great, It is observable in the Muscles of Voluntary motion, and wherever muscular fibres are found in the Alimentary Canal, in the Bronchia and Lungs, in the Intestines, and in the whole Lymphatic and Absorbent Systems. — — —

As to the State of the Simple Solids, their laxity or rigidity, these seem to be Constitutional defects and not to be operated on by Medicines, if any change can be induced on them it is by diet, and they may be considered as out of the power of Medicines —

As to the fluids, it is evident diseases cannot be owing to their vitiated state, as acrimony comes on gradually, whereas diseases are often times brought on Instantaneously, and there are no Medicines which will act on the fluid by being carried into them by means of the Chyle —

We therefore must have Recourse to the Solida viva or moving fibres, for the operation of Medicine, and from these diseases are to be Deduced. — The moving fibres are all connected with the Sensorium Commune or

Sect

Part of the Soul, They are also Connected with
each other, of the various Consp^{ts} I shall only
mention one, that of the Stomach, which
accounts for the operation of Medicines.
The Stomach is Connected ^{1st} with the Sensori-
um Commune very remarkably & ^{2^{ndly}} with
the Viscera of the Thorax abstracting from
its Contiguity & ^{3^{rdly}} with the abdominal Viscera
& ^{4^{thly}} with the Extremities, & ^{5^{thly}} with the whole
Surface of the Body —

The Consent of the Stomach with the Sensori-
um is Evident in Hypochondriacal Persons, whose
Disorder being seated in the Stomach grievous-
ly affects the Sensori-um — Its Connection with
the Extremities is Evident from the Trans-
-sition of the gout from the feet to the
Stomach and vice versa. From the Gout
fixing on the Stomach it happens that
it at length proves fatal. The Connecti-
-on with the whole Surface of the Body is
evident from Various Considerations —

No sooner do some aliments reach the Stomach
of Particular Persons than Spots and Efflo-
-rescences appear all over the Skin —

Vomiting

Vomiting is very often occasioned by a Constriction of the Cutaneous pores, Intermittent fevers are generally occasioned by an obstructed Perspiration, In these we exhibit a Vomist not to Empty the Stomach, but to restore the perspiration; This is very Evident by Emetics frequently producing the same good Effects—altho' they do not operate as if they had done it—The Constrict of the Stomach is very evident all over the System—These Phanomena are to be accounted for no other way than by the Supposition of the acting on the moving fibres or Nervous system.— It has been very usual to Consider the State of the secreted fluids as a Criterion of the State of the Humours, but the Various appearances of these fluids is owing more to the State of the Secreting organs than any thing Else —

Substances have been taken into the Materia Medica by instinct, accident, and Promiscuous Experiments, It is difficult to say what Substances have been taken in or are retained by reason —

The Materia Medica Comprehends all the Substances
 used in Medicine or Diet: the Pharmaceutical part
 was formerly thought to take in the whole of the
 Subject, but surely the Dietical also Deserves a
 place — Medicines may be Divided into
 three kinds —

- 1st those which act on the simple fibre —
- 2nd those which act on the moving fibre or blood & viva?
- 3rd those which act on the fluids —

Nutrientia.

Of those which act on the simple fibre the first
 Class we Consider are Nutrientia by which term
 is meant Every thing used by mankind in Food —

Food is Obtained from the Vegetable and Animal
 Kingdoms, — (The mild, bland, Insipid, and Odorous
 plants are Employed for diet. While the Acid,
 bitter, and Odorous are used only in Medicine
 Those acid substances we Employ in diet are
 not used as Nourishment, but only to render
 our Nourishment more Palatable, these are
 Called Condiments) Here let us Enquire into
 the Cause of hunger, (Concerning which Vari-
 -ous theories have been formed, Hoffmann sup-
 -posed it to arise from an Acid remaining in the

14 Stomach from the former meal and this he thought was proved from the Consideration that Aids taken into the Stomach Create or Increase the appetite, But the Stomach being Emptied Entirely by Vomits Hunger Continues which single Consideration is sufficient to refute this Hypothesis — Boerhaave, Haller and others have thought it to arise from the folds, or Plicae of the Stomach rubbing against Each other, they reason thus when the Stomach is Empty, it being a Muscular organ will Contract, and the opposite Sides being brought together, the folds by their Attrition produce Hunger, But if we Consider that the Stomach is a Round or Corical Organ, and Consequently that its opposite Sides Cannot be Approximated by any force of its own, and also that the Stomach is defended by a Mucous which would prevent this Attrition, we will find that this theory Cannot hold good, To me it appears that this appetite may be accounted for solely from the Emptiness of the Stomach, as we find persons in health never craving food, untill the Stomach is relieved from load of the former Meal, and tho we find persons sometimes

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feel no hunger when the stomach is empty
and at other times continually craving food
altho' the stomach is full, yet these things
never happen but in a diseased state and
instances taken from a diseased state are
not to be relied on in a healthy one—

As Food is obtained from the Animal and
Vegetable Kingdoms it has long been dis-
puted wheather an animal or Vegetable diet
is most proper for Man. We have instances
of whole Nations subsisting entirely on Vegetables,
others live wholly on animal food. Man ap-
pears upon the whole to be designed by nature to
live on both animal and Vegetable substances,
this is confirmed both by reason and experience
Man has not only the Canine or cutting teeth
Peculiar to Carnivorous animals, but also the
Dentes molares or grinders of the Herbivorous.
We find the intestines of Carnivorous animals
to be very short as their food is already of an
animal nature and requires no long digestion
on the contrary the Intestines of Herbivorous
animals are very long, as their food requires
a long Digestion before it can be converted
into

16. into an animal nature. The Human In-
=tines are not so long as those of the Herbivorous,
nor so short as those of the Carnivorous Animals.
We find also by Experience that a sole Vegetable
or animal Diet, brings with it many Inconve-
=niences, the one producing an Acidity and the
other putridity, which cause many and Gre-
=vous Disorders.

Of Condiments, the most general are Salt and
Sugar. The first we use with animal food to
render it more savoury, which it not only
does, but also resists Putridity very powerfully.
Sugar is the most to be Preferred, It is very
nourishing. We may justly assert, that all
Vegetables are the more or less nourishing
According to the Quantity of Sugar they contain.
It is also a very powerfull antiseptic. Dr Astruc
thinks the Reason of the plague and other maly-
=nant Disorders, being less frequent in Europe
of late is the more general use of Sugar, It
may be obtained from all the Gentlest Vege-
=tables. — From our Aliment when digested
is formed the Chyle, which being taken up
by the Lacteals, is by them conveyed into
the Thoracic Duct, which opens into the

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Left Subclavian Vein where it is mixed with
the mass of the Blood, from which are form-
ed all the fluids of the human body, as urine,
bile, Semen Vee —

Let us now Consider digestion or the Conversion
of our Aliments into Chyle. The Liguors Sub-
servient to this, are the Saliva, Gastric liguor,
bile, and Pancreatic Juice. The Saliva appears
to be composed of water and a viscid matter
with the nature of which we are but little
acquainted, It is supposed to prevent moderate
fermentation in the Alimentary Canal —

It is very apt to Concret —

The Chemical Physicians have ascribed Di-
gestion to a Solvent in the Stomach which
they suppose to be an Acid of the Nature of
Aqua Fortis. — The Mechanical Physicians as
Boerhaave, Bellini, and others ascribed it intirely
to mechanical force, Neither were right,
tho Perhaps both were not Entirely wrong.
With a view of Determining this point
Reaumur instituted his Experiments —
He began with a Turkey; A fowl whose
Stomach is remarkably strong and
singular

Muscular, and which always swallows Gravel
 Stones to assist Digestion, He made it swallow
 small glass tubes which he found Broken
 He then tried thin Metal ones, which were
 made flat, and so he Proceeded till he got tubes
 strong enough to resist the force of the Stomach,
 in which he Enveloped grains of Barley, The
 ends of the tubes he Stopped up so that nothing
 could Escape unless in a fluid state —
 After two or three days he found the grains
 swelled, but not more than would have
 happened from their being soaked in any
 other Liquor with the same degree of heat.

✱ In this fowl therefore digestion seems to be
 Carried on wholly by the strength of the
 Stomach. He then tried a Hawk, whose
 Stomach is very thin and Membranous
 and he found the thinnest tubes would
 resist its force, He Enveloped in them flesh
 and found it converted into a mere jelly —
 He then tried the hard bones of an Ox and
 found them dissolved also. He next tried
 grains of Barley which he found not in
 the least altered, In this fowl then Digestion
 seems to be Carried on by a solvent

and that of a Particular nature, so as to 19
Dissolve flesh and even bones, but not to
have the least Effect on Vegetables —
Digestion seems to be Carried on by fermentation
of which there are three kinds, the Vinous,
Acetous, and Putrefactive, of the Vinous we
have an Instance in wine, Beer, and Cyder &c.
of the Acetous when these liquors turn sour,
of the Putrefactive in animal substances
when they begin to Putrefy, — The Vinous
and Acetous take place in the Stomach, and
the Putrefactive in the Intestines — —
All our Aliment in the Stomach is Acet-
-tous, for the Stomach of all animals Conger-
-late Milk — —

Lect 3th Nov. 1786

The Bile has been Commonly supposed to
be of an alkaline and Mucous nat-
-ure. — — Ramsays Experiments refute
these theories, for when he Endeavoured to
unite oil and water by means of Bile
he constantly found his attempts to
fail, He found that he could not succeed
with

20 with it as well as with a solution of sugar, which is not so saponaceous as a Mucilage, and that it is not Alkaline is evident from its standing many years without becoming putrid, only emitting a musty smell.

③ Four parts of Vinegar added to five parts of bile produces a sweet liquor, which will not coagulate milk, tho' the least particle of Vinegar will do it, it has been commonly supposed that this bile was of service to render the Acrid Aliment of the Stomach of an Animal nature, but we can assign a better use for it, it being a bitter will prevent Immature fermentation, An Instance of Bitters preventing fermentation you have in Hops which are added to Wort to prevent the Acrid fermentation, and the bark is given in putrid disorders to prevent the Putrefaction —

The Pancreatic juice is of the same nature and use with the Saliva. Viz it prevents over fermentation —

A theory has lately been formed by Stephens attributing Digestion to Solution, this was founded on some Experiments made by him on an Hungarian Soldier, who

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Discovered the singular properties of digesting Stones.
His Excrements appeared like Mortar. He for a
small gratification would permit Experiments
to be made upon him. Stephens Enveloped vari-
ous^d in tubes of Silver and Ivory perforated, which
he made him swallow and discharge by Vomits
and purges at Different times. He found the
Substances more or less dissolved according to
the time they had remained with him
neither acid nor Alkalies —

We have no reason to doubt of the truth and Accu-
racy of these Experiments. But whether in-
stances taken from a person so essentially dif-
ferent from all the Rest of his Species ought
to be relied upon is a matter of serious Con-
sideration. — It is Certain there is always an
Acid in the Stomach with some degree of
fermentation —

Vegatable aliments are nutritious in
Proportion to the Quantity of Oil and Sugar
they Contain. Rye Contains more Sugar
than wheat and is therefore more nutriti-
ous to those who Can Assimilate it —

Rye is very apt to ferment and hence
* Substances it

it is of service to those who are habitually
 Costive. When Costiveness is owing to laxity
 an animal diet is to be preferred, but when
 owing to rigidity the Vegetable diet is most
 necessary. Vegetable diet is hurtfull to persons
 subject to flatulencies, Animal food is not proper
 for Hypochondriacs, and persons subject to Dy-
 stercias, and indigestion. But to prevent the bad
 Effects of animal food we should use as much
 of the Vegetable as possible, In this Purpose
 Bread and Potatoes are the best, I cannot agree
 with what Cadogan says of the bad Effects of
 Bread in these Disorders, He macerates it in
 water before the fire and found it to become
 Acid, But this is also the Case with regard
 to flesh-broths, and even flesh itself will
 become Acid before it putrefies, Bread or other
 Aliment being well chewed in the mouth
 is then mixed with the Saliva, in the Sto-
 mach with the Gastric Liquor, and in the
 Intestines with bile and Pancreatic juices.
 Digestion is better performed if the food is
 well blended with the Saliva, A person
 therefore who is troubled with Acidity
 should

Should use Bifruit. Persons of a relaxed Stomach Should not Drink fermented liquors of any kind, their Drink Should be Stopp and water, with a little old Rum or Spirits.

Cullen in this Case Recommends a Solution of Common Salt in four parts of Spring water with a little Spirit of Salt to Acidulate it.

I have never had an opportunity of trying this. I find from 15 to 30 Drops of Ch.

Vitrioli taken two or three times a Day in a little water answers every good purpose.

All the Mineral acids answer Equally well,

D Smith found a Solution of Salt to be a very Considerable Stimulus to the Animal fibres.

A Vegetable diet is usefull wherever there is a tendency to putrefaction, or were there is an Inflammatory Diathesis.

The Common notion of a Dysentery being owing to the use of ripe fruits has been very Deceptive as it prevented the application of the

Radical Cure of them, the free use of those fruits,

Difort gives an instance of eleven persons labouring under a Dysentery, nine whereof

Recovered by the free use of ripe Grapes,

But two fell a sacrifice to Prejudice, The
likewise

24 likewise tells us of a whole Regiment of Swiss,
that was almost entirely cut off by the same
disease, and no stop could be put to it. —
* untill the officers purchased the Crops of sever-
al Vineyards ~~in~~ ^{and} sent the Soldiers into them.
after this not one more died of the disorder.
The German Soldier when seized with this dis-
= order trusts to his mixture of Vinegar and Cream
which he will swallow down in as large
Quantities as he can get, and seldom fails of
a Cure. We have a fruit in this Country very
proper for this Disease, the Water Melon ~~is~~ ^{which}
affords an excellent antiputrescent liquor, and
increases the secretions both by Stool & Urine,
Not only ripe fruits, but all acids are pecu-
= liarly proper for this and all other putrid
disorders. Dr Hillary remarks that Acidulated
drinks are very useful in Yellow Fevers. —
Cholera, Diarrhoea, and Cholera are very fre-
= quent from a too great use of Vegetables. —
Cholera are occasioned very readily by peas,
Cabbage &c. Persons therefore that are sub-
= ject to them should abstain from the use of
these Vegetables. These Effects seem not to
arise from their Acidity but may be
accounted

Accounted for in a better manner, These
Vegetables being of a firm Consistence will re-
main a long time in the Stomach before they
can be Digested, they will Evolve a large Quan-
tity of Elastic air which will Distend the
Stomach and Intestines, Causing violent
pains in Particular parts; If speedy Relief is
not given this disease brings on Faintings,
Convulsions, and soon terminates in Death.
The Medicines which I have found to give
the most speedy Relief is the Vol. Alkali's
One Drachm being made into 12 bolus,
or Dissolved in ℥vj of water with the Addi-
tion of a little Opium or Laudanum if
the pain is very violent, and one Bolus or
a Table Spoonfull being taken Every hour
will generally give Relief. That it is not by
their Acidity may be proved from the
use of Spelt Peas, which being deprived
of their outer husk and consequently
rendered easier of Digestion produce no
such bad Effects. — — — —

The Common custom of Eating Cheese with fruit
is a very good one as Cheese Especially when
old is of an animal nature and will con-
vert the bad Effects of the fruit. — — — —

Let.

Diarrhas also arises from a too frequent use of
 fruit, which seems to arise from the Aqueous
 liquor of the fruit mixing with the bile,
 and stimulating the Intestines. If attended
 with no other Complaint ought not to be
 accounted a Disease, but a wholesome Eva-
 -cuation. However if it is too troublesome
 A dose of Rhubarb will generally remove it,
 Cholerae are likewise occasioned by the use of
 fruits, the Acid of which stimulating the Stomach
 and Intestines causes Evacuations both by Vo-
 -miting and Purging, Warm Teas, warm water,
 and Chicken water drank plentifully will
 generally give relief by carrying off the Acid
 matter. But if the vomiting continues, thro
 more Irritability of the Stomach, Laudanum
 may be given in large Doses, and must
 be repeated untill the Vomiting ceases, If the
 Person is Plethoric Bleeding will be necessary,
 left by the Violent straining and twitching a
 rupture of some of the blood Vessels in the
 Stomach, lungs, or head should be occasioned.
 Vegetable Aliment is peculiarly adapted to the
 Stomach, from which it is not only a Super-
 -fluous but also oftentimes cures the Disease -

Many disorders have gone under the name of
Scurvy, any Eruption which a Physician is at
a loss to account for is said to be owing to a
Scorbutic habit of body, By the Scurvy here
I mean what is commonly called the Sea
Scurvy - This disorder generally begins with a
Lapthum and heaviness of the Body, which is
considerably encreased in the morning and even-
ing; especially in the morning, weakness in the
back and knees, an aversion to motion, a Change in
the natural Colour, which becomes yellow and
somewhat Green, The lips become livid, the
Gums swell and become spongy, teeth frequently
elevated bleed on the least pressure, The teeth
become yellow and at length black - The
teeth may very easily be taken out, if there
is a decayed tooth. There is generally a great
pain in the jaw-bone in that Place. The
Breath and mouth give an offensive smell,
Great pain in the joints of the Knees and
ankles, which are worse in the Evening
and morning unless the patient is
relieved by Perspiration, in which may
be said to consist the life of Scorbutic -
People -

28 In the beginning there are sometimes flying
pains in the thorax, but no pains upon being
pressed Externally - The power of the muscles is
very much relaxed. The skin appears like what
is commonly called Goose flesh, hot and Dry. -

^{See} Hairy persons, at the roots of the hairs appears.
Pustules, which are Red, Yellow, Purple and Sub-
livid; In those that are not hairy, there appears
spots like flea-bites, Red, livid, Purple &c; Scars
from wounds or Ulcers, appear Dark and livid,
Yellow and black spots appear all over the skin.

Tumours in the limbs at first moveable -
afterwards they penetrate into the muscles and
become Immoveable, running along the limbs.

(Hæmorrhages from the Nose, mouth & Anus)
A swelling of the legs and feet very much like
a Dropsy, the skin is black and yellow, livid
and purple, and upon being pressed leaves no
mark. There are no ulcers formed unless were
the skin has been lately broke, there is no
pus generated in them, but a black blood,
Sometimes they form a fungous flesh, very
Quick, which tho' taken away by medicines
or the knife will speedily sprout up again,
within

29
Within the body, the patient has no fever,
sleeps pretty well, no head Ach, tongue natural
except sometimes yellow, has no thirst, a
pretty good appetite, he continues in the free
use of his senses to the last. In the advanced
stage, the pulse is very small and weak, and
beats from 70 to 90 strokes in a minute
sometimes unequal and Intermittent, the
patient is generally Cative but not griped.
In the advanced stage there sometimes comes on
a Dysentery and Diarrhoea. Dysentery generally proves
fatal, the Diarrhoea is generally salutary, No diffi-
culty in making water, tho in small quantity
and high colour, with yellow, brown sediment.
The blood even at the beginning is then dis-
solved and black, the serosity is salt, sharp,
and has a yellowish, green swimming on it.
Grievous palpitations of the heart upon
moving, tho they generally appear well
when lying in bed. They cannot even bear
the admission of fresh air upon them.
They are very nervous and timid, even the
most courageous become pusillanimous
and as it were afraid of their own shadows -
fear

30 fear and Sadness, suddenly depress them.
* Joy and hope as soon raise them. Towards
the last breathing becomes difficult and
they expire without a sigh or groan, and
can scarcely be said to feel the pangs of Death.

The proximate Cause of the Scurvy is an accu-
-mulation and retention of putrescent matter
in the body. All our humours are continually
tending to putrefaction; but in a healthy state
there is no Inconvenience felt from our food
or drink, from these as the most Airimmonious
parts of our fluids, are carried off by urine, stool,
but principally by the insensible perspiration.
But if this perspiration is stopped by any
means and at the same time such a diet
is not used as will obviate the putrid ten-
-dency of the Humours, the consequence will
be the Scurvy. And tho' putrefaction may be
said to arise from, rather than to be the Cause
of the Scurvy, yet we find the Breath affected
in the very beginning of the Disease. The
secretion by urine is diminished, and Res-
-piration affected, The Scurvy more often
happens in cold than in warm climates,
because

because in the latter the Perpiration is kept up and the Putrescent matter carried out of the Body, while in the former it is retained. It is reported that sailors in the West Indies living on the common ship provisions enjoying good health, have Perspired even salt in such quantities as to appear almost incredible — This putrescent matter producing the Scurvy is different from that producing putrid fevers, Dysenteries &c. The latter are attended with Head Ache, thirst and Delirium, whereas none of these symptoms accompany the Scurvy. —

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With regard to the occasional and predisposing causes of the Scurvy they may be said to be whatever generates Putrescence or tends thereto in the human body: Cold Air; such Food as is of a putrescent nature, Difficult of Digestion or affords little nourishment — Moisture alone is not the Cause of the Scurvy, unless joined with Cold, as appears very evidently from various Considerations.

The

32 The Venetians who live in a very moist, but at the same time warm Climate, never know any thing of the Scurvy, scarcely by name - The Russians and Laplanders in the north of Europe, where in the winter the lakes and Rivers are frozen up in such a manner that no Exhalations can arise, but were the air is very Cold they feel the dire effects of this Disease. With the Spring this Disease is relieved; It appears by the Journal of the seven sailors who perished of the Scurvy one after another in Greenland, that during the 8 Months they were there, they had but 10 Cloudy and foggy days - It likewise appears by very accurate Journals kept both by Sea and Land, that the Scurvy seldom or never makes its appearance while the Thermometer is above 40 Degrees, (the living on salt provisions) but generally appears when it falls below 60 degrees - Cold air causes the Scurvy, by checking the Respiration and preventing the Acrimonious parts of our fluids from being carried off by that Evacuation. —

animal

Animal food, Especially such as is salted, ^{Con= 33}
tributes very much to this Disease, Whether
the salt or the meat is the Cause, has been
the Cause of great Debates, Many Physicians
have accused salt, and in support of their
opinion mention the Laplanders who live
almost wholly on animal food preserved
by the salt, and seldom or never are affect-
ed with this Disease, But this Argument
is not Conclusive, as the people use sour
milk with their food, which obviates
the putrid tendency thereof, There is no
Instance of salt alone producing the
Scurvy, The Case is the same with regard
to fresh meat. It seems most probable
that neither produce it singly, but both
when combined produce effects which
neither separately will do, Salt renders the
meat hard and more Difficult of Digestion,
and this way it is produced by both —
Salt fish, Salt Butter, and Cheese are ^{also} very
apt to produce this Disorder, Salt butter
is generally rancid and putrescent, New
Cheese is most Difficult of Digestion, and
the old is generally putrescent if not putrid.

The

34 The best preservatives against the Scurvy
are a Vegetable diet and Exercise, Vegetable
diet prevents this disease by Correcting the
acid tendency of the humours. Exercise by
keeping up the perspiration, and carrying off
the Regenerated fluid. When a person is attacked
with this disorder, Exercise will be of service -
but the only thing he will have to rely upon
is a Vegetable diet, and vegetable Acid,
which prove always Effectual, unless a per-
son is in the last stage - The mineral Acids
will be of no service, nor any other but
such as are liable to undergo the Acetous
fermentations; Peruvian Bark (and all other
antiseptics) will be of no service without a Veg-
etable diet, and were that can be procured, the
use of all other Medicines will be superfluous,
Unless a person begins to mend on the first
Day after he enters upon the use of a Vegetable
diet there are no hopes of his Recovery. -
If he lives two Days after being brought on
shore he may Expect to get well. Vegetable
Crepes are peculiarly adapted for this Disease,
The Drink Lemonade and weak Punch
will

will be the most Preferable, The Preserved & Vegetables are also Excellent Preservatives against the Scurvy; Of this we have a Remarkable Instance in Cook's second Voyage round the Globe. He carried with him great Quantities of Pickled Cabbage, and lost but five men during the whole Voyage, not one of the Scurvy solely, which he ascribes to the free use of the Pickled Cabbage and Vinegar. The other symptoms which occur are to be treated as if no Scurvy was present. The best manner of discharging the Tumors is by bathing them with lime juice or Vinegar. I have been thus particular on the Scurvy, in order to show the Effects of diet with regard to Disease - Having been so full upon Vegetable Aliment in general, for the Properties of particular Substances, I must refer you to Cullen's Materia Medica - - -

(Vegetables differ in Solubility according to their texture, Those of a firm texture are of difficult Solubility. They are less Noxious in proportion as the Sugar and Oil are more intimately blended, as in the Farinacea - In nuts the oil not being well blended with the Sugar will be apt to Cause Heart Burn) We

36 We now proceed to speak of Drinks —

The general use of Drink, is to supply fluid to the System, and to facilitate Digestion. Drink taken in moderate Quantities facilitates Digestion and proves nourishing — but if taken in large quantities it carries the food too soon out of the Stomach, and hence hinders nutrition — Drink keeps fluid the Lymph and other humours, and hence prevents obstructions in the Glands; Hence secretion is carried on in a proper manner, the Insensible perspiration is kept up, and the Degenerated part of our fluids evacuated before they can be accumulated, All these ends are best attained by pure water. Various Substances have been added to render it more Palatable; However it may be said in general that all Substances are proper for Drink in proportion to the water they contain, Acids are very properly joined with water to Quench thirst the better, Here let us Enquire into the Causes of thirst, which may be reduced to 4 Heads

1st It is occasioned by a Defect of fluids in the System

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System, by which the secretions by the Salivary glands will be Prevented, 2nd By Solid Acid food Especially when taken in large Quantities — 3rd By Alkalasant aliment, Especially when fructid, 4th by an Increased action of the Heart and Arteries, Especially if Accompanied with fevers. — Thirst is Sometimes Intolerable from a Spasmodic Constriction of the fauces, preventing the secretion of Saliva; As to the use of Drinks in fevers, I think the patient may be allowed to Drink plentifully, provided they do not take large draughts, Large draughts overload the Stomach, but moderate ones often Repeated Increase the secretions, supply fluid to the System, and keeps up a gentle perspiration, When thirst arises from a Constriction of the fauces, it is only to be removed by taking of that Constriction, which may be done by holding Acid, as Tamarinds &c in the mouth, for these will open the secretory ducts of the Salivary glands, and Stimulate them to Discharge saliva; As to the drinks proper for particular fevers; The Acidulated are best in Inflammatory fevers; But doubtfull weather in a Tonic Inflammation, as in Pleurisy and Pneumonies, as these are generally attended with

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with a Cough; they are also very usefull
in putrid fevers, & Dysenteries, or wherever
there is a Disposition to Putrefaction; For these
last Advant of Turnnet whey, to which is
added 2 or 3 ℥ of Cream Tart: is a very agreeable
and useful Drink - This may also be used to
advantage in the Measels, which require no-
thing Else; Acidulated Drinks produce no good
Effects in Nervous Fevers, as they weaken the tone
of the Stomach, which is already too much weak-
ened; In nervous fevers, Sage Tea, Balm Tea,
Wine whey, and in the advanced stage Mustard
Whey, are highly Proper. — Acid drinks
should not be given to those who are recov-
ering from Intermittants; In the Inter-
missions and hot fit, they should use Infu-
sions of Camomile or Century; During the
Cold fit they should Drink nothing at all —
As to the use of drinks weather Cold or warm
is best; — In all topical Inflammations and
Inflammatory fevers in general, Cold drinks
should be avoided; But in low nervous,
Intermittant, and Putrid fevers, they are more
proper than warm, and may be used with
Advantage; In Nervous fevers the Patients
should

Should drink freely, and it should be given³⁹
to them often^r than they ask for it.

The use of Punch in warm weather is very
Pernicious, as it weakens the Stomach, and
lays the foundation for Gout, and other disorders.
Persons in a Dropsy, should abstain from
drink as much as possible, There is gene-
rally great thirst attending this disease
arising from a Constriction of the fauces,
which may be relieved by holding some-
thing Acid in the mouth; but no fluid
should be swallowed, or at least as little
as possible.

Let us now Consider Condiments

Condiments are all such Substances as are taken
in with our Aliment to Correct its bad tenden-
cy or to render it more Palatable, or agreeable
to the Stomach; Aromatics are certain Acid
Substances which we use to render our food
more Palatable, They are generally the produce
of warm Climates; As Cinnamon, Cloves, Nut-
megs, Mace, Pepper &c

Analagous to these in the colder Countries
are the Seed of Anise, Carraway, Coriander,

Journal

40 Fennel and all the Sweet Herbs. They Stimulate the Stomach, promote the Peristaltic motion, are antispasmodic and antiseptic.

They ought not to be used in the Cold Countries, where people generally live on an animal Diet, but in the warmer Climates where people generally live on Vegetables, they may be used with advantage, as they are very proper for a vegetable diet. They ought principally to be avoided in the prime of life, as they are apt to Destroy the tone of the Stomach, they may be indulged in old age when the Stomach requires a stimulus to assist digestion.

In the Northern Climates the Cress kind may be used with Animal food, viz: Radish, Horseradish, mustard, Cress themselves, and indeed all the Siliquosa. These Stimulate the Stomach, Diuretic, and Diaphoretic powers.

Leeks, Onions, and Garlic, may also be used with Animal food; they Stimulate the Stomach are Diuretic and Diaphoretic.

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The Condiments more generally Employed, are
Salt, Vinegar, and Sugar.

Salt is most universally Employed; it is the
most cheap and least apt to fall of the Condiments.

It has been said to be antiseptic, But this
seems to be Contradicted by its being used
with vegetable, and that Carnivorous Ani-
-mals are poisoned by it, tho' here it would

seem to be most necessary, whereas it is
very usefull for Graminivorous animals
and the husbandmen often gives it to them,
and sure it cannot here act by any Antisep-
-tic Quality. It is very properly Employed
with Vegetable Food - - Animal Food preserved
with Salt is rendered hard and firm, and Conse-
-quently Difficult of Digestion - -

It stimulates the Stomach, promotes the appetite
and the Excretion of the Gastric Liquor - -

It has been said to produce Scurvy, but we
have said before, that it never produces it
alone; Salt is very proper for persons trou-

-bled with worms, Particularly the Tape
worm, as it has been found to kill worms
out of the Body, this is Consistent both with
reason

As Reason and Experience, I has also been
Recommended in this City, As a Specific in
Spitting of Blood, I made trial of it in one
Case, it afforded no Relief, In another the
Complaint was Relieved, but this I attri-
-buted more to the use of the other Remedi-
-es Employed along with it.

In two Cases I used it with very great suc-
-cess. — Vinegar gives a grateful taste
to our Aliment, stimulates the Stomach and Ex-
-cites Appetite, It is Particularly proper with
animal Food that tends to Putrefaction, it is
also useful with Vegetable Diet, as it determines
to the Acetous fermentation; and thereby pre-
-vents the bad Effects arising from the Vinous.

Sugar Cannot be Employed for the same length
of time, and in such Quantities as Common Salt,
As it soon falls the appetite, It is one of the
principle Ingredients in Vegetables, and In-
-deed the Principle of Novishment in them,
As it is a very powerfull Antiseptic and is
very properly Employed with animal Food,
For which, it is better than Common Salt,
as it renders meat more Soluble —
Sugar is liable to undergoe the Vinous and
Acetous

Acidous fermentation, and hence it is ^{cau-}cau-
=ble of all the bad Effects of Ripest Vegetables.
Therefore it is prejudicial for those who are
troubled with flatulencies, Indigestion, and a
prevailing Acid in the Stomach. It is very
usefull wherever there is a Rigidity or a
Disposition to putrefaction — Many disputes
have arisen about its wholesomeness — it has
been said to occasion disorders of the teeth by
its Acid sticking to and Corroding them, but
unjustly, for whole nations live on Raisins
which are more Acrid with Impurity —
Faults of this kind are imputed to it oftener
than it Deserves, Hot tea, Coffee, and the
free use of spiritous liquors may more
justly be accused. — There are two Causes
to which the Early loss of the teeth in this
Country seems principally to be owing,
The 1st is the Vicissitude of the Climate, the Al-
ternate heats and Colds, subjecting us to
Cold and Rheumatic affections of the Head
and face — the 2nd operates chiefly on the
fair sex, they being subject to Indigestions,
and Disorders of the Stomach, which we know
affect the breath and teeth —

Sugar

2nd Sugar has been accused of Producing worms, but it has quite a different tendency, at least it neither contributes to the generation nor augmentation of them, the finer the sugar the less subject it is to the Acetous fermentation, the Coarser is more fermentable, hence the Coarse sugar will be more liable to produce bad Effects, - Many have been Deterred from the use of fine sugar, by the Quick-lime being Employed in Refining it, but not the least particle of lime enters the Composition of the sugar - The fine sugar Preserves all the good Qualities and none of the bad, The Vegetables preserved with sugar have the same properties with it, except the Acid as Ginger which retains their own; Vinegar Preserves have no properties different from Vinegar, except that they are rendered difficult of Digestion, and for this Reason they should not be used by those of a weak Stomach.

Having treated of Vegetable food, let us now proceed to speak of Animal food -

Animal food differs from Vegetable food in many Essential points -

1st As it is already of an animal nature it
Requires

Requires only solution and mixture to be
Converted into our fluids, whereas the Vegetable
stands in need also of Assimilation, 2^{ndly} it is more
Easy of Digestion & it is more nourishing,
and 3^{rdly} it disposes to Inflammatory and putrid
Diathefis. The Consequences of a too free
use of Animal food, are all kind of putrid
fevers, Dysentery, Scurvy &c, Animal food
is more Stimulating than Vegetable, It
gives a thicker and denser Blood, It should
therefore be avoided in Inflammatory fevers,
Apoplexis &c. and by those who are subject
to Hamorrhages, Young persons, Especially
Children should use it sparingly.

Those who are Employed in Mental Exercises
should abstain from meat and live upon Vegetables.
The Solubility of animal food Differs according
to age, the Young being less Soluble than
full grown, By full grown, I mean the most
perfect state, not when old; It also differs ac-
cording to Vigidity, and for this Reason, Young
meat is less Soluble than Old, as it is more
vigid; Animal food is more Soluble Accord-
ing to Alkaliscency, for this Reason mutton &
Venison are very Easy of Digestion; and
hence

hence the lean of fat meat, is the most
Easy of Digestion, whereas the lean of poor
meat is the most Difficult; Flesh is Per-
spirable according to Alkalinity, Mutton &
Venison being most Alkaline^{est} are most
Perspirable, Pigeons and fowls least; Pigeons
and fowls ~~from~~ their Viscidity and little
Alkalinity, are very Difficult of Digestion.
and therefore are improper for those of a
weak Stomach, but as they remain long in
the system, they are very Nourishing, but
should only be used by those who work hard
or use Exercise; The Solubility of meat
differs also according to the manner of
Dressing—Boiled meats are rendered
less soluble, but they give less stimulus,
Roasted meat is more soluble, and gives
more stimulus, and on account of its
stimulus it is improper in fevers.
Meat that is but little roasted is more
soluble than that which is well done,
because in the latter the oil is separat-
ed and the solid parts are more Approx-
imated, besides it is by being well
done rendered less Alkaline^{est} and this as
we have said before contributes to solubility
ended

Boiled and baked meats are rendered ⁴⁷
more Difficult of solution.

For more on the head of animal food
in general, and for the Particular kinds
of animals Employed in diet, together
with many Curious and useful remarks
on this head I must Refer you to Dr
Cullens materia medica, who has
treated it so fully, that it would be only
taking up your time to say any thing
farther on it.

Lect 9th Nov: 1785

Milk is of so much use both in Medicine and
Diet, that it deserves a particular Consideration.
This Lecture shall be on the subject of Milk.
Milk is of an intermediate nature between
animals and Vegetables, In all viviparous
animals there are certain Glandular Sub-
stances called Mammas, they differ from
all other Glands in this respect that the
latter secrete constantly, the former only
at Particular times, By these the
milk is secreted — The Cause of their
secreting only at Particular times, has been
a

4th A subject of great dispute, There is a con-
=sent between the Uterus and Mamme, ow-
=ing to a Communication of blood Vessels,
This is Evident from the pain and swell-
=ing of the Mamme at the time of the
Menstrual flux—When the Epigastric Arter-
=ies are compressed, more blood is derived
into the Mammary; Hence during Gefe-
=tation the breasts swell, because the
gravid uterus distending the Abdomen
compresses the Epigastric Arteries; On the
Cesation of the Lochia, the breasts are also
enlarged, which is owing to more blood
being derived into them;—The secretion
is owing to a derivation of blood thro' the
Epigastric Arteries to the Breasts, it is not
owing to Placenta, because after birth
the milk begins to be secreted, altho' Wo-
=men then loose a great deal of blood—
And there are instances of milk being
plentifully secreted, when besides the dif-
=ference of blood by the birth, women have
lost several pounds of blood on account
of Disorders—
The secretion is increased by suction, nay
there are instances of milk being

secreted

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Secreted in Virgins by Suction. If the
Child is not applied to the Breast for some
time, or if they are not sucked the Milk
will be lost. Infants should be put to the
breast soon after Delivery, to prevent Obstructions,
Cancers, and other Disorders arising from
the Retention of the Milk.

Milk Consists of three parts, Oil or Cream which
is like the Vegetable oils, and derive from
them; A Coagulable part which is of an ani-
mal nature; And water in which is dis-
solved a saline or saccharine substance.

These three may be procured separate
in the form of Butter, Cheese, and Whey.

Milk has been supposed to be taken up into
the lacteals without suffering any change,
but this is not the case, it is decomposed
in the Stomach, Coagulated fermented and
then taken into the lacteals; It is not sub-
ject to the Vinous fermentation, and hence
not liable to produce flatulencies; It
is not attended with the Stimulus of Ani-
mal food, It is hurtfull to those who are
troubled with an Acid in their Stomach
and to those recovering from Intermittents.
Asper, Mares, and Human Milk are not
so Asperment nor so easily Coagulated as
Cows

50 Cows, Goats, and Sheep, The latter contain near the same quantity of Cream, Coagulum, and whey, and are very Acident —

Human and Ases milk have been preferred to the others in Diseases — Ases milk is not so Acident or Coagulable as Cows, it contains a larger quantity of whey — Mares milk is similar to Ases — Human milk is not Coagulated by Rennet, Acid, or boiling, but on standing will separate into its parts; Persons labouring under diseases very often give good Milk. There are instances of Nurses taking Mercury untill their mouths were sore, and the Child even not being in the least affected, Nay some Nurses have had the Venereal disease whilst the Children continued free —

This confirms what I said Above that the secreted fluids are not a criterion of the state of the Humours, as they depend on the state of the Glands. — The passions of the mind have a considerable effect upon the Milk, In so much that Children have been thrown into Convulsions by sucking an Angry Nurse — Some think milk is secreted from the blood, others derive it Immediately from the Chyle — The latter seems to be the most Probable Opinion, from
various

Various Considerations, It differs very Confir- 54
-derably from the blood, - Blood is putrescent,
whereas milk is Aescient, it also remarkably
-bly partakes of the Nature of our Aliment,
This appears very Evident by some Expe-
riments made by Dr Young on a bitch,
whose milk he found to be more or less
aescient, according as she was fed on Ani-
-mal or Vegetable Diet. Vide Young de Lactia-
Milk is peculiarly Adapted for nourishment
being of an Intermediate Nature -
By boiling it is rendered less Aescient, and Con-
-sequently less Laxative - It is much better
when used New, than when it has long been
Drawn - The milk of Lactating Animals
is more Difficult of Digestion than that of
the others - Milk is Aescient partaking of
the nature of Vegetables, it is therefore very
servicable in the putrid and Inflammatory
Diathefis, for this Butter-milk seems to
be rather better, as it is more Aescient,
Cooling and Laxative. - - -
Milk is very servicable in hectic fevers,
Human and Asper milk are the best in
Consumptions, In the palsy Turnet whey
is very good. This is the safest Remedy in
Internal

Internal ulcerations, in this Buttermilk
is also very useful —

A milk diet is not so good in the Gout, especially in old people, for in these it will often bring on other Disorders which will prove fatal, Besides their Stomachs being used to stimulating food, it will not well agree with them, the Gout is often a Constitutional Disorder and cannot be cured without entirely changing the State of the Humours — This is best done in young people, when the System is not too much weakened, and in these a milk diet, accompanied with a proper use of Exercise, and an Abstinence from wine, and Venery, will be of great service — A Milk diet is peculiarly proper for the Scurvy, Particularly Cavis, & Goats — Milk is very serviceable when poison has been swallowed, as it defends the Stomach and Intestines from its Acrimony, and is a very good Vehicle to carry it off — The use of it should be continued here some time, as the poison sometimes Lays hid — It is very useful in Disorders of the Stomach, Disorders of the Bowels, as Diarrhoeas

= rheas, ~~and~~ Dysenteries and often Cured by ⁵³ it,
Especially when Boiled; In these disorders
the natural mucus of the Intestines is Absor-
=ed, the milk by its Demulcent and Glu-
=tinous quality Supplies its place —
To render it more glutinous various Sub-
=stances may be added — A woman near Gerv-
=mantown, gained a great Reputation for a Supposed
Specific for the Dysentery, upon Inquiry I
found she Boiled 2 or 3 Sheets of white paper
in milk, Another Domestic medicine is
 $\frac{1}{4}$ lb. of mutton Suet boiled in a pint of milk
and drank at once. Marsh-mallows & Comfrey
root, or to give it the appearance of art, Gum
Tragacanth, or Arice, boiled in milk will also
produce good Effects, all these act by their
Glutinous and Demulcent Quality, supplying
the place of the natural mucus, as milk
when boiled in Cistive, it will also act in
this manner, checking the too great and
frequent discharge of faeces — Milk is also
best adapted to change the state of the
Humours — For this reason it is of great Ser-
=vice in Scrophulous, Cancerous, and
Venereal Complaints —

54 Lect 10th Nov. 1785

In our last lecture we finished the Consideration of Nutrientia, with an account of milk — let us now take A View of what has been said in the preceding Lectures —

We have seen that all aliment is either Vegetable or Animal, and that man was Designed to live on both, this we proved from the Structure of his teeth, Stomach, and Intestines, and by the bad Effects attending the sole use of either, and the advantages of a mixed Diet — We next Considered Digestion in which we found the Saliva, Liqueur Gastricus, Bile and Pancreatic juice, were of Considerable Service; We took notice of some Hypothesis concerning it, viz. that some ascribed it to a solvent in the Stomach, others, to Mechanical force, we shewed that neither were right, tho' both perhaps were not Entirely wrong, We made it appear that Digestion was Carried on in the Human Stomach, by fermentation, which was of three kinds, the Vinous, Acetous, and Putrefactive, which were prevented from becoming too great by the Liqueurs above mentioned, but principally by the Bile, which acted by its Bitterness —

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We found that Vegetables were more Nour-
-ishing, in proportion to their Sugar & Oil
and that they were more Easy of Digestion
and less noxious, as these were more Inti-
-mately blended, — That a Vegetable Diet
was improper for flatulencies, Indigestion, and
Costiveness, arising from this last Cause —
and for such persons, as were subject to
Hysterie & Hypochondriac Diseases, that it
produced Heart Burn, Cholice, Diarrhea, and
Cholera Morbus, That it was very usefull
wherever there is an Inflammatory or putrid
Diathesis, That in these last Cases Animal
food was hurtfull, but that it was proper
wherever there is a prevailing Acid. —

That animal food was more soluble than
Vegetable, and that it was more soluble in
proportion to its Alkalinity & Acidity —

We next proceeded to speak of Condiments,

We found that the Acromata were very
improper for animal food, but that
they were useful with Vegetables —

We found the Cereals, Honey, and Althaea were
the best for Animal food, That Salt was
the most greatfull Condiment — and

56 and when pure testified putrefaction —
That Sugar was Antiseptic nourishing, and
destroyed worms, that Vinegar prevented
putrefaction, and assisted Digestion —

We then spoke of Drinks, which we found
were of use to supply fluid to the system,
and facilitate Digestion. That drink taken
in moderate Quantities facilitated Digestion,
but taken in large quantities hindered
Nourishment —

We observed also that Sanguine persons who
possessed the strength of the mind to that of
the Body, should live chiefly on Vegetables,
which gave strength of Imagination —

We next considered milk which we found
to be of an intermediate nature between
Animal and Vegetable, We also pointed out
in what Cases it was to be given, and in what
to be avoided. We also shewed what milks
were preferable in Particular Cases —

Astringents are to
The next Class we consider are Astringents —
by which term we mean such Substances,
as Approximate the parts of the Body, and
Encrease their Cohesion — Astringents are
very various, They are taken from the
mineral

Mineral and Vegetable Kingdoms — 51

They are discovered by their Coagulating and Contracting the parts, to which they are applied. The Vegetable Astringents strike a black Colour on ink, on being mixed with the preparations of Iron. They should be administered with the utmost Precaution, as the improper use of these brings on hectic fevers, Dermatitis swellings &c.

Synonymous to Astringentia, are the terms Roborantia, Constringentia, Aretantia, Indurantia, Consolidantia, Styptica, with regard to the Solids, with regard to the fluids.

Coagulantia, Inerassantia &c. Astringents extend their effects over the whole system. This has been commonly ascribed to the Circulation, that the Astringent was taken up by the blood, and by it conveyed to the most distant parts, where it produced its effects, but this will appear erroneous, if we consider that it would take some time to produce its effects, and if diffused in the whole mass of the blood, very little could arise at any particular part, and therefore to produce any considerable

58 Considerable effect, large Quantities must be used, whereas we find that Small Doses taken into the Stomach, will almost Instantaneously produce their effects, at the most distant parts. We hence are led to conclude that Astringents act on the Nervous System, or moving fibres, by this means producing their effects so suddenly and at so great a distance, and not on the simple Solids or fluids. — We know the fact, but we are ignorant of the Cause, or of the manner of Operation —

Astringents are Employed internally & externally, in Haemorrhages. With regard to their Exhibition internally. If a Haemorrhage arises from the suppression of some natural Evacuation, Astringents ought not to be used, If it is from some unusual part of the body, it should not be suppressed, untill the humours are brought to their natural Channel, after the natural Evacuation is restored Small doses of Astringents may be given —

Unnatural discharges becoming habitual ought not suddenly to be suppressed, Any unusual haemorrhage ought not suddenly to be suppressed, if the Person is of a full

Habit

Habit of body, bleeding may be employed
to give a new determination to the humours
if this is not sufficient small doses of
weak Astringents may be used, In using
Astringents we should guard against Co-
stiveness, and for this reason should join
weak Purgatives with the Astringents—
When an hamorrhage threatens to prove
fatal, Immediate recourse must be had
to astringents, The strongest possible Astring-
ents will be necessary in this case, If the
Person is of a strong and robust habit of
body, bleeding will be necessary, as such
Persons have generally febrile symptoms,
but if this is not the case and the hamorrhage
is owing to a Relaxation of blood Vessels,
bleeding is improper as it will increase
the hamorrhage, and Astringents must
be used alone, Recent hamorrhages
may more safely be suppressed, than
such as have continued a long time—
Astringents should never be used in ha-
-morrhage unless the Cause which pro-
duced them is removed — The

60 The use of Astringents is doubtfull in Haemoptoe, for if it is checked suddenly the blood will be Accumulated in the Lungs and produce dire Effects, They should not be given during the paroxysm, but may be given in small doses after it. Critical hamorrhages should not be stoped, unless they threaten Death, which is seldom the Case —

Astringents Act either by Contracting the Solids or Coagulating the Fluids, in either way they may suppress hamorrhages.

They are sometimes employed Externally in hamorrhages, but I think they are of no great Service in this way, for if small vessels are injured, Dry lint and pressure will stop it much sooner, and if a large one a Ligature will be much safer — They have also been Employed in the Cure of ulcers, which heal with Difficulty, and here they may be of Service, as they contribute to the formation of good Pus, and strengthen the parts, enabling them to unite with more Ease —

Sept 11th Nov.

61

Astringents are also serviceable in Ganguena
as they not only prevent, but also cure
Putrefaction. — An instance of this you have in
the Peruvian Bark, which is Employed both
Internally and Externally, It has been pro=
-posed to inject Astringents into the Abdomen.
with a View of curing Dropsies, but this
Practice is now deservedly Rejected, for as this
Disease is generally owing to a Relaxed State
of the whole System, it would be in vain
to attempt to strengthen the Lymphatics
of the Abdomen, without at the same time
strengthening the whole System, They are
of no Service in the Hydrops Pectoris and
all Encysted Dropsies. — They sometimes
produce good Effects in the Anasarca, by
strengthening the relaxed and Debilitated
habit of Body.

They are also used in Diarrheas and Dys=
-enteries, these two are generally Confound=
-ed, however they are Different, A Diarrhea
arises from Refrigeration, in it the Stools are
frequent, liquid, and of the Natural Colour,
it

62 it is also accompanied with Gripings and
-bougmi. A Dysentery is occasioned by putrid
Exhalations, in this the Stools are not so
frequent, are slimy and frothy, accompanied with
A Tenesmus, In the beginning also Dysen-
teries are generally accompanied with Fever
Astringents should not be used in these Cases
until the Diarrhoea are first evacuated, this
may be done by Rhubarb, and Spicacuanha.
after the morbid matter is evacuated, if the
discharge is still kept up by Irritability and
Debility, Astringents Combined with Opium
produce very good Effects. Strong Astringents
should not be given, but the weak Vegetable
ones in small Doses. — Astringents have
also been recommended in Evacuations of mucus
as Gonorrhoea, and Fluor Albus or Whites —
In the first Stage of Gonorrhoea, where there
is an Ardor Urinae, Inflammation of the Urethra,
and Chordee, Bleeding, and Cooling Medicines
are to be used. this even here some use
Injection of Sacch. Saturni: which is one of
the most powerfull Astringents, but
this practice I think is very improper,
11. h. m.

When the Inflammation is abated we may use ⁶³
astringents sparingly, when it is quite gone
if the running still continues we may use
astringents with safety - The Fluor Albus
generally seizes Elderly women who have
born several children, and is very often
the cause of Barrenness - If it has continued
a long time, we must take notice of the
rules formerly laid down with regard to Men-
strual discharges. We must also Enquire wheather it
is owing to an ulceration of the Uterus, or to
laxity, or to some other Cause, if it is owing
to laxity which is often the Case we may
Employ Astringents

Astringents also Excite the Excretions, this
may at first seem somewhat strange, but
if we Consider that the Suppression of Evacu-
ations, is very often owing to a weakness and
Relaxation of the parts, Astringents by Re-
storing Strength to the parts, will also Ex-
cite the Evacuation. - In this manner they
act in the Chlorosis, and in Costiveness, arising
from a weakened Peristaltic motion
of the Intestines

Astringents

Astringents have been recommended in the Stone and Gravel—Van Swieten and De Haen—have said that the Uva Ursa, which is a powerfull Astringent, not only mitigates but also sometimes Cures the pains arising from the Stone, whilst the Stone itself was not in the least altered—It has been said that all the most famous Lithontriptics ever in use, either were, or acted as Astringents, of this I shall speak more fully when I come to treat of the Virtues of Lime Water &c—The use of Astringents in Inflammation is doubtful, The Causes of Inflammations are Various, an Increased Action, and straitness of the Vessels, thickness and Stagnation of the Blood, or some External Stimulus—The Stagnation of the Blood may be caused by a weakness and laxity, of the Vessels, Inflammation ~~from~~ an increased Action of the Vessels generally take place in the young and strong, and here bleeding and the Antiphlogistic method are Necessary—In old People were it arises generally from laxity, Astringents may be Employed. In young people Inflammation tend to Suppuration, and in old to Gangrene, and in both these Cases

we have seen Astringents are Employed ⁶
Having now treated of Astringents in general
and pointed out the Diseases in which they
may be Employed, we will proceed to speak
of the Particular Astringents —

These are either Fossile or Vegetable, of the
fossile there are 3 kinds Earthy, Saline, and
Metallic Substances — of the Earths there
are three kinds, Boles, Clays, & Absorbent
Earths, — Boles These are of little Consequence
and I believe might entirely be rejected, as
they are Insoluble in the fluids of our system
no Effects can be expected from them, They
have been said to act as Astringents as they
contain other Substances, e.g. Iron —

But if we want to use these Substances, we
should have Recourse to preparations of them
which are more Certain than Boles, If they
exert any effects at all in our system I be-
lieve they are bad ones, They have been
accused, and I think justly, of sticking in the
Plicae of the Stomach & Intestines, and
their forming or serving as a Nucleus for
Calculus Concretions —

Clays

Clays or Argillaceous Earths, are distinguished from Absorbent Earths, by their not ~~effervescing~~ ^{effervescing} with Acids, they are now never employed in Medicine, as they have little or no Effects —

Absorbent Earths effervesce with Acids of all kind and may be used where there is a prevailing Acidity in the Stomach, They have been used in Diarrhaes, & Dysenteries; When a Diarrhoea arises from too much Acid, which frequently happens in Children, and which is discovered by the green Colour of their Stools, Absorbent Earths by neutralizing the Acid, may remove the Cause of the Disorder, but they do not act as Astringents, They are much oftener given with a view of purging the Body — As Dr Pingle has found them to be Septic, they are particularly improper in the Dysentery, we however, see them still prescribed in this Disorder, as the Calined Hart horn in the Decretum Album Pharmacop. Pauper: ~~Disinfecting~~ the ~~Acid~~ Medicine of No advantage Chalk has been used instead of it, but its Effects are Inconsiderable, and I believe Pericious —

Of Saline Substances, the Principle and 61/
I believe the only one that is an Astringent is
Alum—This is formed by the Combination
of the Vitriolic Acid, with a particular kind
of Clay. The Alum we have in our Shops is
artificially formed of this Clay, of this we have
two kinds, the Roman and the Common Alum
and whatever Difference, they may have with
regard to their use in Dying, there is certainly
none in Medicine. When found native it is
called *Alumen plumosum*, Alum is one of
the safest and most powerful Astringents,
as it is soluble in the fluids of our system
its operation is very quick, and it acts in
much smaller Doses, than the Vegetable
As it is endued with a Sedative Virtue,
may be Employed wherever there is need
of an Astringent, joined to a Sedative, when
Metallic Astringents, by Reason of their
Stimulus are hurtfull—It has been
Employed in Inflammations of the Eyes, and
it has been thought that the white of
an Egg with which it is joined has some
Virtues, but the only one is that of giving
Consistence and Contributing to more convenient
Administration

68 Exhibition, Where it is owing to Debility
general bleeding is pernicious, where there
is too much blood, topical bleeding, by Cupping
or Leeches, will be necessary, to prevent a
rupture of the Vessels. It is very useful in
relaxed and putrid Gums, mixed with Sage
Tea and sweetened with honey to serve as a
gargle, In this manner it is also used in Angina,
from ulceration, and to good Effect. It has been
also applied externally, to dry up Excretions of
the Skin, as Excessive sweating under the armpits,
but its use here is very Precarious —

It is also very useful in violent haemorrhages
of the uterus, it is the substance we can most
rely upon. Helvetius obtained a premium
and Pension from Louis 14th for his preparati-
on of Alum, He took some Sanguis Draconis &
melted it over the fire in a Ladle, to which
he added as much Alum as it would take up.

The Sanguis Draconis serves here as a Convenient
vehicle to form it into pills, In the Pharma-
copoeia: Indica: Tona Japonica has been
substituted to little Effect, for the Sanguis Draconis:
The method which I have found to be best
and which I generally follow, is to form it
into

into Bolus with Conser. Rosar. from 69
5 to 10 or even 15 grains in a bolus, to
take one Every Hour or half hour. It has
been given in larger doses as 3 \mathfrak{s} every hour,
but in this dose it generally excites Vo-
miting, and as we should Endeavour to moder-
ate and not suddenly to stop haemorrhages
small doses ought to be preferred, it has
been used in bleeding at the Nose, by dip-
ping a tent in a very strong solution of Plum
and stuffing it up the Nostril from which
the blood issues, so as to fill it completely
at the same time holding up the Head
and applying Cold Vinegar to the forehead
and back of the Neck, It has been recom-
mended in the Colica Putorum and Fluor
Albus. Dr Cullen has recommended it in
Dysenteries & Dysenteries, where he thinks
it will act, not only by its Astringent but
also by its Antiseptic quality, It has also
been said to produce good Effects in Intermit-
tent fevers, when combined with Aromat-
ics and taken just before the fit comes on.
It has also been recommended in continued fe-
vers, With regard to its effects in these disorders
I can say nothing as I have never made a
trial of it

Lect.

We now proceed to speak of the Metallic Astringents. of these the first is Copper. This is a metal soluble in our fluids it may be combined with Acids, Alkalies, & neutral salts, There is very little Difference in the Preparations, if any, those with Alka: the most stimulant, with neutral salts the mildest, and with the Muriatic Acid the most powerful Astringent. Copper is a very powerful stimulant, and excites vomiting even in small doses, which renders the Exhibition of it very Difficult, As the Combination with neutral salts is the mildest, they ought to be preferred, It has been used with very good success in Dropsies, as it acts not only as an Astringent, but also as a Diuretic and Purgative, It has also been Employed in haemorrhages and increased Evacuations. The Terrae Vitrioli is used Externally to Check haemorrhages, which it does not only by Contracting the Solids, but also by Coagulating the fluids, with which it immediately comes in Contact. On account of its stimulating effects, it is very Difficult to

Exhibit

Exhibit it internally. Boyle recommends
the *Ens Veneris*, to be given internally to
stop Evacuations, but since his time
Physicians have spent more time in dis-
puting about the preparation of it, than
in making trials of its Efficacy. Some have
said it was a preparation of Iron — Boyle
himself says it is of Copper, It may be
procured in Crystals, in the following man-
ner, Dissolve any quantity of Roman Vitriol
in distilled or rain water, thereto add the
Spt. Sal. Vol. Arno: untill it is saturated
after which pour on highly Rectified Spt.
Vini: untill nothing more will precipi-
tate, after which pour off the fluid; and
elegant small sapphire colored Crystals
will concret — We have in this all
the advantages of the other preparations
of Boyle's, and never any of the Mur-
matic acid mixed with the Copper —
This preparation is very useful in that
Disease of universal Scarcity, (the Ticks
as Boyle observes) —
being a very powerful Astringent. It

ii

72 is highly Antispasmodic, and has been
used in the Epilepsy with success, I my-
self remember a Case in which it suc-
ceeded remarkably well; it may be given
from 1 Gr. to 5 Grads up into a Grain, it is
best to begin with the smallest dose, and
increase it gradually, for it will occasion
Nausea, Vomiting & purging. Boyle recom-
mends it also as an Anodyne, and says that
it acts without the Inflammable qualities
of Opium - Experience does not seem to con-
firm this - Boyle recommends Copper in
petechial Fevers, accompanied with subul-
tus tendinum, but here its effects are doubt-
ful, and it ought not to be used, until the
Medicines, that are generally found to suc-
ceed in these disorders fail, and then it may
be tried -

All the preparations of Copper destroy worms
out of the body, and there is no doubt but
they would produce the same effects with-
in the body, if they could be retained in
sufficient Quantities on the Stomach -

73
A single drop of it Dissolved in a Solution of
Vol. Alkali: was found to Eradicate a Child to
whom it was Exhibited. — — — — —
The Roman Vitriol has lately been used in the
London Hospitals in Intermittants and fre-
quently with good effect. The dose is from $\frac{1}{2}$ gr
to 1 gr. Emetics of Vitriol are in great Repute
with some. Especially in sore throats, In
the Angina Scarlatina of this Country, they
would seem to have some good effects, by Stim-
ulating the fauces and promoting the Ex-
cretion of mucus. but in this there is
no doubt but the Mercurial preparations
are to be preferred, particularly Turbith: Shiner.
Copper is often used in Germany to prevent
the Phorophobia, consequent upon the bite of
a mad dog. The Physicians of Copenhagen
bestowed great Elogiums upon its
Intention — D. Conturminer the president
of the Berlin Society, assures us that it
produces very good effects. He gave 3℥ of Cop-
per filings strewed on buttered Bread at a dose
and never found it fail. — There is no ^{reason to} doubt
of this Gentlemen's Veracity but whether the
the

74th The Dog was mad or not in these Cases is not certain. — Possibly as the disease is of a Spasmodic nature, with violent Convulsions — Copper may be useful, acting by its Antispasmodic, and Astringent nature —

It is employed in External applications in ulcers, where by stimulating the Vessels it brings on that degree of Inflammation that is necessary for the formation of good pus, It was employed by the Ancients as a digestive, and Echarotic. — Mercury is now more commonly employed for this Purpose —

But there are Cases in which Copper is preferable to Mercury, and perhaps others where another Metal will answer better than either. * D. Cullen gives you an Instance of a Disease, very much resembling a disease we call the Yaws, in this Mercury was found constantly to fail, but Copper always effected a Cure. This then should induce every Surgeon, never to dismiss a Difficult ulcer, untill he has tried the

Virtues

* Vide D. Cullen's Mat. Medic. Tom. 2nd page 36

75
Virtues of Copper, and if this fails he may
try some other Metal —

It has also been employed as an Echarotic —
But I would advise you to be cautious in us-
ing Echarotics, for by the too frequent use
of them for the Removal of fungous flesh —
a good wound is converted into a very bad
when they ought then to be used very spar-
ingly — If they are necessary the best Prepa-
rations are the Mel. & Ungt. Rhyssiacum —
The Echarotics most commonly employed
are Roman Vitriol, Burnt Alum, & the Red,
and white Precipitates —

As to the doses of Copper, taken Internally no
certain rules can be laid down concerning them
for one person may take a large one when
at the same time half the quantity will
suffice another — The best way is to be-
gin with small doses, and increase them
gradually if necessary —

Iron is a metal of more frequent use than
any other, it combines with most saline
Substances, and is soluble in all Acids —
The Vegetable Acid however only corrodes it,
but

76 but Extract all its Medical Virtues. It may
then be given in Substance, as it will be Cor-
roded by the Acid in the Primæ Viæ, but this
is always an uncertain Method, as it depends
upon the Acid in the Stomach, which if the
Iron does not meet with, it will produce bad
Effects merely by its Mechanical Action.
We had therefore better use some preparation
it matters not which, as they are all possessed
of similar Virtues.

When we want it in a Powder, Lemerys me-
thod is the best. Viz. to let water stand A-
bout an inch deep upon Iron filings, by
which means part of them will be Cor-
verted into a fine black powder, which may
be Separated from the Rest, by Shaking the
Vessel, when the uncorroding filings will
Separate. Iron Combined with the Acid of
Sea Salt is the basis of the H. Martis of
our Shops. This will Combine with
highly Rectified Spirit of Wine, will form
Dulcified Mt. of Salt. Iron is purely Astren-
gent, without the Stimulating qualities
of Copper, or the Sedative, and Delirious

ones of Lead, but it is not as powerfull an
astringent as the one, nor so much of an Anti-
spasmodic as the other, On account of its Astring-
ency, it is indicated in all Cases of Laxity
and Debility, and in Obstructions proceeding
from these Causes. It is also antispasmodic, but
ought not to be given during the Paroxysm
but may be given after it to prevent its Re-
turn, It is indicated in the Hysteria on these
Accounts, and never fails unless where there
are obstructions of the Viscera, and in these
Cases, I combine Chalybs. oph. with Magnesia
It may be combined with bitters and Aromatic
and given in very relaxed Tones of the
Stomach. It is improper in the Hypochon-
driac disease, but it ~~may~~ ^{has} be given some-
times in this, as it was supposed to be of
the same nature with Hysteria, but they
are very Different. In the Hysteria disease
there is a laxity of the Solis, flatulencies,
and a disordered State of the Bowels, with
loose Stools, it generally attacks women,
and is purely Spasmodic, it is generally
Incidental, it is relieved by cold weather,
hence it is not so frequent in the Northern

As in the Southern Climates —

The Hypochondriac Disease generally attacks persons of a Melancholic Temperament, it is accompanied with a Rigidity of the Solids — Stiffness, and sometimes Spasms of the Abdomen, but it is seldom purely Spasmodic, it attacks people in the decline of life, is commonly habitual, and is not so frequent in the Southern, as in the Northern Climates, They both sometimes occur in the same person. Cress has been employed in Intermittents by D. Stahl and his Followers, who laying it down as a maxim, that fever was occasioned by nature endeavouring to throw off some morbid matter from the body — and thought it not proper to disturb her in her operation, and therefore used the Peruvian bark but sparingly, They employed a very subtle Crocus Martis — but did not suppose it acted as other Astringents, and even Bark itself — It is very powerfull in Chlorosis, and Suppression of the Menstrue, owing to this Cause, Suppression of Menstrue is not always

owing

owing to relaxation, but is sometimes
occasioned by rigidity and Spasm, In these
Cases Iron is hurtfull, It is hurtfull in all
Inflammatory Diseases, haemoptoe, and all
haemorrhages. It is injurious in all ob-
structions of the Viscera, and wherever
there is a disposition to putrefaction —
The use of it ought to be avoided in Consump-
-tion & Plethoric habits, In Bilious dis-
-eases we ought not to use it. Except in
Small Pox, In ulcers of the lungs &
Viscera, it ought not to be given, Ex-
-cept very much diluted, and accompani-
-ed with a proper degree of Exercise —
In these Cases the Mineral waters, which
often produce effects not to be imitated by
any preparations in our Shops, This is cer-
-tainly owing to the smallness of the
Doses as they contain nothing but Iron,
and the strongly impregnated Min-
-eral waters seldom answer so well
as the weak ones which we reject —
If our patient cannot have the Advan-
-tage of these, we may make an
Artificial

80th Artificial mineral water, by dissolving
Grain or Grv. of Sal. Mart. in 2 Quarts of
water — Iron is also a Considerable Vermis-
fuge, Chalybs opt. has been Commonly Em-
ployed for this Purpose, but the Sal. Mart.
is much preferable, as it strengthens the
Stomach, and Bowels, and prevents the
future generation of worms, I generally
give it from Grj to Grv. at a dose, mixed
with a little molasses, for Syrup, not on-
ly to conceal the taste, but because all
Sweets have the Power of Destroying
worms, — In Relaxations of the Stomach,
producing flatulencies, Indigestion, and
Cholera, Grj of Sal. Martis made into pills,
with Venetian Soap, and Occasionally a
little Rhubarb added, and taken two or
three times a day, I have found to have
very good effects. — Sal. Martis and all
the other preparations of Iron, will
give a black Colour to the
Alvina faeces —

Lectr

Lect. 13th - 1785

81

The Subject of this Lecture, was the Virtues of Lead, and its various preparations, and the Disorders in which it may be used, Under the head of Lead the D^r gave an Account of the Colica Pictonum, which is most commonly produced by Lead, He also in this Lecture gave us the Virtues of Lime, and the preparations thereof, Lapis Calamine, Sulphur, & White Vitriol, which is a Composition of Lime & the Vitriolic Acid - This last he told us was sometimes used as an Emetic in the Dose of ʒj - For the want of paper, the particulars could not be taken Down, and on this Account, this Lecture is so Deficient -

2

84 Lecture 14th — 1785

The flowers of Lime were first used by Dr Glauber. They were next used in Spasmodic & Convulsive Diseases by Dr Gaubius. Dr Hart upon obtaining a Doctor's degree in the University of Leyden, chose for the subject of his discourse the flowers of Lime, in this he mentioned a variety of Cases, in which they had proved successfull. Dr Gaubius used them in the Coughs, Hysterics, Hiccough, and Spasmus Cervicis, tho' not always with success, He says they are particularly usefull in Convulsive Coughs — They have lately been used in the Edinburgh Infirmary and it is said with success in Epilepsy. I myself have made trial of them in many Cases, but they failed in all except one. The Causes of Epilepsy are Various and the Disease is often Incurable, It most frequently first appears after Violent Agitations of the mind, Various medicines have been recommended in this disease, Where it is not symptomatic, but Idiopathic, or when it is hereditary the flowers of Lime may produce good effects. — They

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They are possessed of a gentle astringent quality and by this may perhaps alter the Constitution which is to be done by slow means, and we sometimes find Nigella, which is a weak astringent, prove very serviceable in this disease. The Flowers of Lime may be obtained either by — ion. or — ion. They may be obtained in the following manner, Dissolve any quantity of white Vitriol in pure water filter the solution, and to it add a filtrated solution of Sal. Fri until nothing more Precipitates; by repeated affusions of pure water wash out the saline taste, You will then have it in form of a white insipid powder, in Children under 10 Years of age it may be given in doses of ʒss two or three times a day, and the dose may be gradually increased.

We are in the Next place to treat of Mineral Waters. But before we consider those it will be necessary to say something on Common Water. Water is an insipid, not inflammable, transparent, & fluid body, there seems to be but one species of it in Nature, Except where other Matters adhere, and are easily separable from it.

Chemist

166 Chemists have even supposed it a very simple, and Elementary production, It enters all other bodies, Metallic perhaps only excepted, It is very probable that its fluidity is owing to the quantity of Air Combined with it — It may readily be formed into Earth, and some have even supposed that this Earth was formed out of water, and is continually encircling by the waters subsiding — Water may be reduced under two Heads; simple or Common, & Mineral Water. — The first is universally mixed with some other matters, which however are not to be perceived by our Senses — Mineral Waters are so impregnated as to be easily discovered by our Senses. Common waters differ considerably from one another, The method to Judge of Common water, is the same with that to try Mineral waters, The most simple methods are by adding a solution of fixed alkali, or a solution of Silver, which are precipitated by the $\text{O} + \text{V} + \text{O}$ which are generally present in the Earth — Sugar of Lead is the most subtle of any and very few

few waters will stand the test of this, we can
therefore only judge from the plus & minus.
Specific gravity has been reckoned a test, but
improperly, as air diminishes it, and many
saline substances have the power of fix-
ing a large quantity of air, the more air
water contains, the more powerful a men-
struum will it be.

Water is derived to us from the Atmosphere

Rain Water is the purest of all waters,
and can only be imitated by frequent Dis-
tillations. However it is not perfectly pure,
Hail or Snow are equally pure, but as
less impregnated with air, they are
weaker Solvents than P

Dew is another Atmospheric water, which
must be more impure than the former,
as they never rise high from the Earth—
We know they are more putrescent than
the former— Rain, Snow, & Hail, fall
in the greatest quantities, on mountains,
Hence are formed Brooks, Rivers, & Lakes,
the waters of which come nearest to the
Atmospheric, in Purity, by running
A

DD.
A great way they may be impregnated
with various substances, the waters of lakes
do not intirely stagnate, for they general-
-ly have some outlet, small lakes may
however suffer some change and become
putrescent, River waters seem to be very te-
-nacious of there purity, and are scarcely
affected with other matters. Spring waters
take there rise from river waters, for
they penetrate the earth, and afterward
bleak out again in the form of Springs
These are of different degrees of purity, those
in the higher grounds are more pure, than
those in the lower, Few of them however
are Entirely pure

Mineral Waters have afforded to Chemists
and Physicians of all ages, a subject of In-
-quiey, We should therefore expect to find
a good Account given of them and their
Qualities & Virtues, But as these have been
misrepresented grossly, thro Ignorance,
Design, & Credulity, we must expect
little from writers, We must therefore
proceed on quite a new plan, and

Endavour

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Endeavour to determine A priori, To do this we must first Consider what matters may be combined with water, and of what Quality these matters are, and then determine their Virtues, The matters that may be combined with water, may be reduced to four heads, — Saline, Inflam^{able}, Metallic, and Earthy ~~and~~ matters —

1st Saline Matters, There are no acids in the Earth to impregnate Water but the O & S. The latter is found in the Common Salt, in a fixed Ammoniac, it is also found, but very rarely. It is present in sea water, and some Springs but scarcely in its simple state. The O may be present in its separate state, but only for a moment, as it is so ready to combine with other matters, The water that flows out from Coal mines, has more or less of O which is owing to the Liquor deliquescing in the Air, but this is hardly to be called a mineral Spring — The Vegetable Alkⁱ is certainly excluded, from the fepile kingdom, and therefore is not found in mineral waters — Volatⁱ Alkali, has not been ascertained, to enter into Mineral waters in

a

A. separate state. Yet a Volat. Alkali has
 been obtained from mineral waters by Ac-
 curate Chemistry, but it seems the result of
 a Decomposition of Hepar $\frac{4}{10}$ present
 there. Ammoniacs have not yet been disco-
 -covered in mineral waters, The fossil Al-
 -kali seems almost universally present in
 mineral waters, If you consider what has
 been said above, you will easily see that
 Glauber, and Common salt, are the only neu-
 -trals which occur in these waters. They
 are seldom pure but more commonly com-
 -bined together. — Glauber salt is not uni-
 -versally present, as has been imagined, but
 a Composition of O and Magnesia, commonly
 called Sal. Glauberi Turanicum, has been
 commonly taken for it; this gives us purg-
 -ing saline waters, as at Epsum. These
 waters from the figures of their Crystals
 have been called Nitrous waters —

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2. Inflammables

Oil matters, Saffratha is the only fossile oil,
and we must therefore only expect this —
Sulphur, cannot be combined with waters
in a simple state. But 4th Combined with
alkali, becomes soluble in water, sulphur-
reous waters, commonly called stinking waters,
as those of Harrowgate in England, are owing
to this. Hept 4th the 4th however is generally
present in very small quantities, and there-
fore the virtues of this water are perhaps
not so considerable as has been imagined —
their virtues may be rather owing to the
alkali. Whether oils mixed with alkalis
and forming soaps, are dissolved in water
and give us saponaceous waters is still
doubtful.

3. Metallics. the most metallic matters are
insoluble in the Acids present in the Earth —
Some are insoluble in their ores, others re-
quire heat, the greatest part therefore are
Excluded — Iron is the most common, & may
be Corroded by Acids, and saline Substances,
and is therefore present in some Springs,
but

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But rarely as it is precipitated by Iron, Iron
then is present in almost every Spring -
Rarely in its natural State, but frequently
Combined with Neutral Salts. Dissolved
in the ϕ it should be in the form of green
Vitriol, but we can hardly obtain it in a
green Vitriol, this is because the ϕ is ge-
nerally in a Volatile State, which is when
readily decomposed, and then loses its power of Hold-
ing Iron in solution, As this acid is rendered Volatile
by air, hence the reason for their not being Easily
kept. This volatile Spirit has been accordingly
Called *Spiritus Mundi*

Waters impregnated with ϕ are found in few
places, and by laying Rods of Iron into these Springs
the Copper is precipitated, and the Iron suspended;
hence the name of Cement Waters, Blue ϕ , has
been found in Scotland and a few other places,
but very rarely, and this for the same reason as with
the Green ϕ . It is very remarkable that we find
no waters impregnated with Lime, tho' it is
suspended by ϕ , and is precipitated by ϕ or ϕ ,
tho' White ϕ is found Native, and Lime is
now found frequently in the Earth

Perhaps

Perhaps nevertheless, Lime is frequently present but there is a Difficulty in Discovering it, whereas Fe & S are easily discovered, The only true means to know it is present, is by taking the Testum, of the waters, and Cementing it with Copper, and thence producing Gas — Dr Gmelin has found Lime present in one Spring of mineral waters, in Siberia —

4th Earthy Matters. These are very copiously suspended in water, independant of solution in acids. Calcareous Earths are frequently present these are intirely insipid, and are only discoverable by their Sediment, as all the Mineralizing waters, these waters have frequently been used with success in Calculous Cases — Magnesia Alba is also found, — The earth of Alum is sometimes found, Crystalline earths are undoubtedly present, at least waters deposit a Crystalline Sediment, but they are never present in such quantities as to give them a peculiar Quality — Clay or Argillaceous earths is probably present, in waters, especially in those commonly called Saponeous. Earths combined with Ox and forming Earthy salts give us different kinds of water —

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1. O^+ with Calcareous Earths gives us Selenites.
this gives us what is commonly called hard
waters — With Magnesia Alba, sal. Glaub. Spumum
this gives us what are commonly called Nitrous
waters — With the earth of Alum it forms
Alum. this occurs rarely dissolved in Water, as
it is precipitated by As^+ ; Besides alum is a rare
production of Nature — Fixed Ammonia This oc-
curs very rarely, and perhaps not at all, as the
Experiments made for this purpose, are scarce
Accurate enough — Mineral waters have a-
gain been divided according to their Temperature
into Therma & Acidula, but they have no foun-
dation in Chemistry, tho' in Physic it may have
Application, It would be in vain to attempt giv-
ing you any theory for the heat of the Therma,
for we are at this time as ignorant of the Cause
as our Ancestors were

We Come now to the method of determining the
Nature and Composition of Mineral waters —
This is one of the most difficult things in Che-
mistry, To do it properly you should pay
a Particular Attention to the following things,
1st you should Examine the water at the
head of the Spring if Possible — 2nd

2nd The Situation of the Spring, the Nature of the
Soil, and the hills and Mountains near it,
3rd Its sensible qualities, 4th Determine its
heat and weight by the Thermometer, and
Barometer, 5th Examine whether it contains
any thing Volatile, If it does the Specific
gravity is less, it will also sparkle at the
head of the Spring, and when shaken in Vessels,
when enclosed in bottles, corked tight it is
very apt to Crack them. You may get the
volatile part separate by tying a bladder to
the Neck of the bottle in which it is enclosed,
and shaking the bottle frequently. After
this loose the string round the Neck of the Blad-
der and separate it, you will then have
the Volatile part separate in the bladder —
6th Observe the Changes it undergoes, in Open
and Close Vessels, and when applied to different
degrees of heat, the Crystals and Sediment should
be Examined, 7th Subject it to Distillation,
of this there are 3 kinds, Evaporation, Distil-
lation, and Precipitation, by certain Substances,
During Distillation you should frequently
Examine the Results — We judge whether
it

96 it is an Acid or Alkali (it contains) from the
taste, and from its effects on the Symp of
Violets, Acids will turn it Red, and Alkalies,
Green, — We Discover Φ from the smell,
and from its turning silver black, when
cast into it, — If it contains A. Oli. Earth,
it will be Decomposed upon adding a fix-
ed Alkali, or a solution of Φ in the O.

Chalybeate waters are Discovered by the
turning black upon the addition of Galls,
or any other Astringent, — If the water
contains Φ it will turn blue upon the
addition of — as Oxalis, by adding ~~to the~~
water, Φ is precipitated, — If you mix the
Sediment of any mineral water with Char-
coal, and set it on fire, if it contains the
least Portion of O. it will emit a Φ reous
Smell, — Lastly we should make an Imit-
tation of the water by art, i. e. we should
add such Substances to pure water, as we have
found the Mineral waters to contain, If we
cannot by the addition of these matters
perfectly Imitate them, we may be cer-
tain, that we have not been perfect
in our Investigation, and that something
hath

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hath escaped our notice, — The virtues of
Mineral waters, have been reckoned very
many, it would take days to Recount
the Diseases in which they have been re-
commended. They have, as was said above
been misrepresented by Ignorance, Design,
and Credulity, — Before we can understand
the effects of Mineral water, it will be
necessary to say something on the effects
of Common water, Cold water taken into
the Stomach, acts as a powerfull stim-
ulus to the system, and Determines
very powerfully, to the surface of the
Body. It has been used by the Spanish,
and Italian Physicians In fevers to
bring them to a Crisis, It is also of service
in Chronic diseases. — By its stimulus
it excites appetite and promotes Dige-
-tion, and by its bulk Expedes the Ex-
-pulsion of the Food, and increases the
Peristaltic motion of the Intestines, By
its bulk it distends the Vessels, and
proves a stimulus to the Vascular sys-
-tem, when carried into the Blood, and
promotes

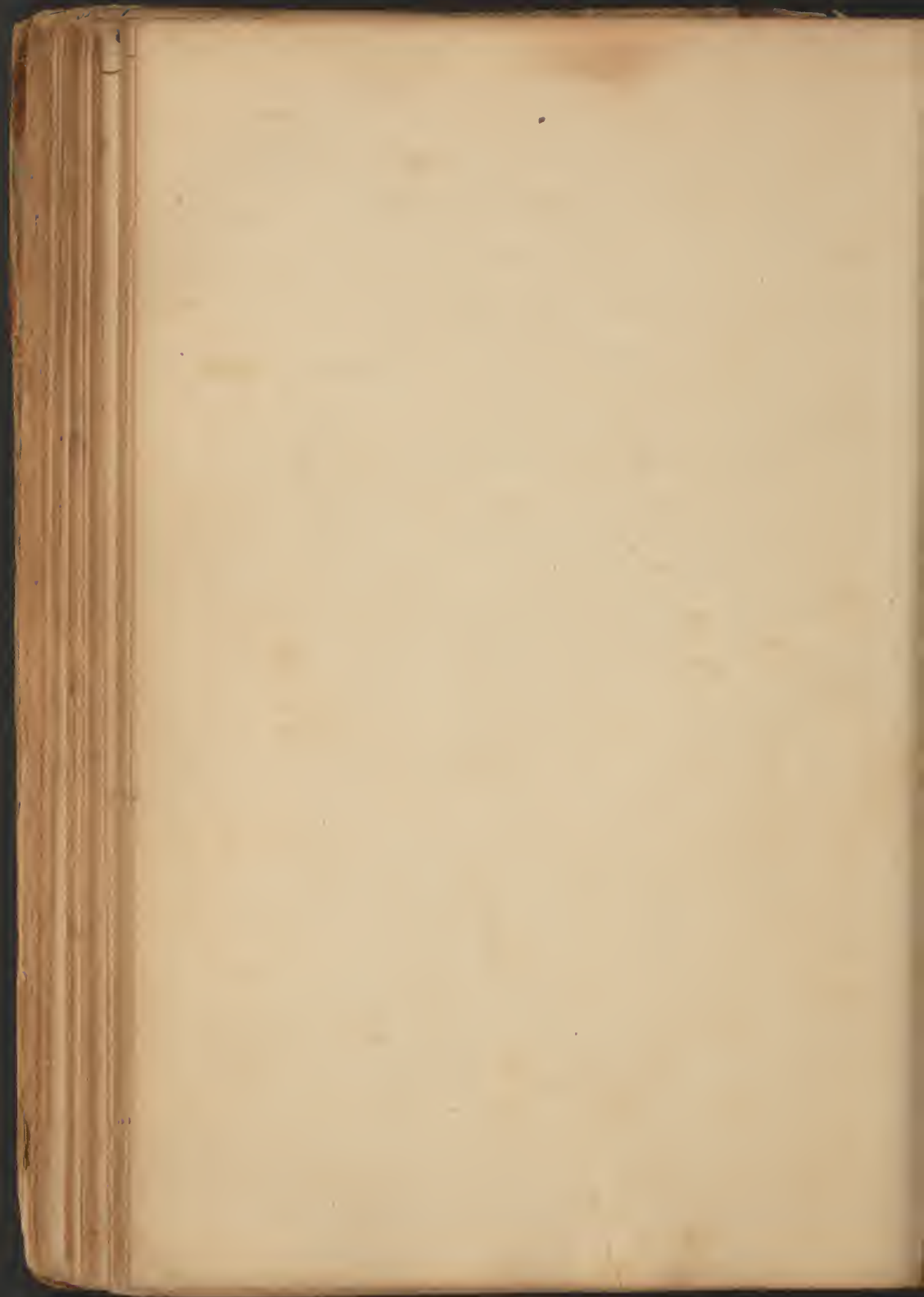
9^d Promotes the Secretions, As the humours and all ~~the~~ other parts of our body are continually Changing water will serve as a convenient Vehicle to Carry them off —

The Mineral waters, possess all the virtues in common, with pure water, and besides these some peculiar to themselves —

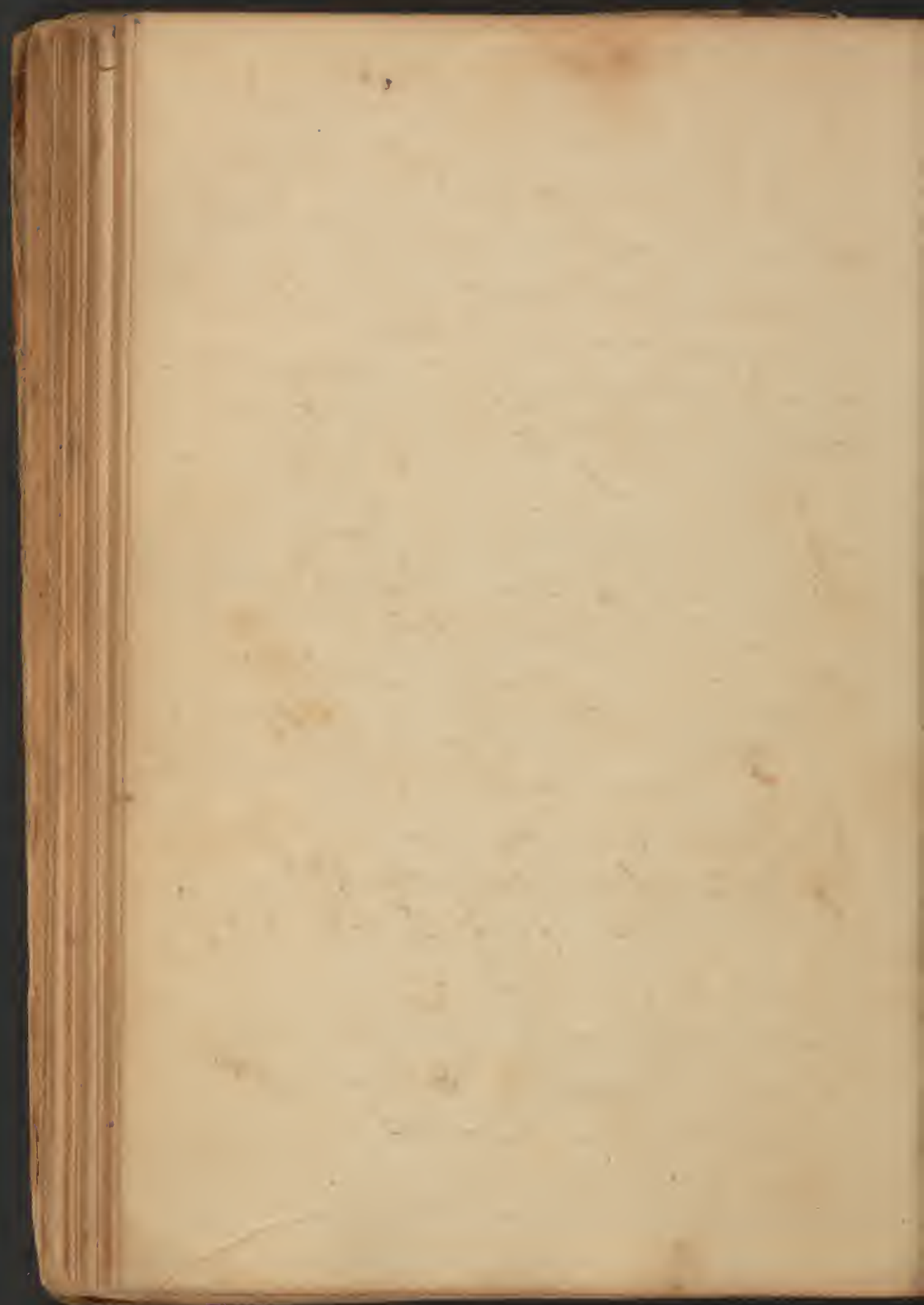
Those that are impregnated with Acids or Alkalis, are more Stimulating. Those with Oil or Φ deterimine more powerfully to the surface, and hence are of service in Cutaneous Disorders, Especially the Itch —

Those impregnated with Earthial or Volatile matters sit lighter on the Stomach, Those with Iron, or Copper, partake of the Virtues of the Metals themselves, and may be given whenever they are Indicated, The mineral waters are to be preferred wherever we want to exhibit the metals in small Doses, and are willing that they should be excluded from the system in a short time, The use of the Mineral waters may be persisted in a much longer time, than we could give the Metals in substance —









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We now come to treat of
Vegetable Astringents These differ from the
Fossile in several very material points —
1st They are not so quick in their operation,
2nd Their action is more confined to the Prime Via
whereas the stimulus of fossile Astringents pro-
-pagates their effects farther over the system —
3rd They are weaker, and no Physician will
have recourse to them on any emergency —
When we want a strong and quick operation
they are inferior to the Fossile. — The best me-
-thod of exhibiting them is in substance —
The reason for this is because we have no pow-
-erfull menstruum to extract them, We have
-ferred water & Spirit of wine, The former will
-not extract their Virtues without repeated Effu-
-sions & Decoctions, and of the latter a large
Quantity is required, and after all the Impreg-
-nation is Inconsiderable, Besides Spt Vini limits
the dose very much — Dr Wilson remarks that
the Peruvian bark remains a long time in
the Stomach in a Solid form, and it is proba-
-ble other Vegetables do so too. —

Dr

100
D'ullen says he has seen Bark thrown up
unchanged 8 days after its exhibition, but the
Stomach must certainly have been Disordered
in this Case, In a fluid form they pass off more
quickly, and are liable to undergo a fermentation
which will destroy their Astringent power —
Wherever we want the operation to be strong,
Sudden, and Certain, we should use the Spicile A-
stringents, — The Vegetable Astringents are to be
preferred for gradual Changes in the Constitution —
They should be given in substance, in powders,
pills, or Bolus. By a long and Continued use of them,
we are apt to induce a habit of Costiveness, we
should therefore combine gentle purgatives
with them, for this purpose Thubarb. is the
best, as it has combined with its purgative
an Astringent Quality — We should not use
such purgatives as tend to Refrigerate, for they
will Relax the System, and destroy the effects
of the Astringents, — We now proceed to speak
of particular Astringents, the operation of
which you will understand, from what has
been said Above — If I should be guilty of
some Enigmas in treating of these, you
will

Will be at no loss, if you consider what I have¹⁰¹
already said, and as Dr Cullen has so fully treat-
ed of them, We will mention such it have
been recommended for Particular Diseases, of these
the first we shall mention is

Pentaphyllum or Enguepoil, This is a simple
and agreeable Astringent, but a very weak one,
and therefore no great effects are to be expected
from it, Accompanied with other Astringents
it may be of Service in weak and relaxed Habits.
It may be given in form of Tea, from its agreeable-
ness as Common Drink - The Express'd juice of
it has been said to Cure the Flow'r Whites -

This 9 times out of 10 is owing to a general or
partial Relaxation, It may be useful by Re-
storing tone to the relaxed parts, Dioscorides re-
commends a decoction of it for the tooth Ach -

Rosa The flower of this are a weak Astringent
of an agreeable odor and taste. They may be em-
ployed in Putrid fevers, & Dysenteries, and also
to prevent the Return of Haemorrhages -

Sormentilla is a pure Astringent, It was used in
Intermittants before the Peruvian Bark was dis-
covered, as early as the times of Hippocrates,
and wherever the Bark is now used -

It ¹⁰²was generally combined with bitters, for it was known that astringents joined with bitters were of service in Intermittants before it was discovered that nature had united them in the Peruvian Bark, It has been recommended for Diarrheas, and Dysenteries, as well as other Astringents. — A Decoction of it has been said to prevent Abortion, which is very often owing to Relaxation and Irritation, It may therefore be prevented by gentle Astringents. — The best method is to macerate 3j of Tormentil in ℥ij of Cold water, for 24 hours, A Cold infusion of Astringents, is always preferable to a warm one for the heat will often change the Qualities of the Substances. —

Rubrica or Madder is a very weak Astringent and as such might pass unnoticed, It has been found to colour the bones of Animals that feed upon it, and those of young Animals sooner than old. It has been employed for the Rickets, but it is very improbable that a substance which renders the Animals which feed on it sluggish and heavy should produce any considerable effects in this Disease, Nature generally performs the Cure here, the Cold Bath is of very great service in it — Madder

Madder has been recommended in the Jaundice,¹⁰³
but it possesses no Virtues by which it could
possibly effect a Cure, The Jaundice is almost
always owing to Concretions in the Biliary
Duct, It generally goes off suddenly from the
Evacuation of the Concretion, and the medicine
which happens to be given at that time
is reckoned to perform the Cure, The Cure of
the Jaundice is to be attempted by Solution
or Evacuation, We have not yet discovered
any Remedies which will dissolve the Con-
cretion, Evacuation is to be attempted by
Emollients, Emetics, & Cathartics, by which
the Concretion may be expelled into the
Intestines, P. Shutter has recommended
a Decoction of Madder for the Cure of the
Gutta Serena or Red pimples on the face

Bistorta is a simple and strong Astringent
It has been recommended for the tooth Ach
and for fastning loose teeth, The soundness
of the teeth is owing frequently to the Du-
rity of the Gums

Bistort and others of this kind, by moderately
astringing the Gums, will preserve them
and consequently the teeth

Lapathum

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Lapathum or Dock kind. of these there are various kinds, but their virtues are nearly the same. They have been recommended in the Scurvy, and Cutaneous Eruptions. They have also been employed in the Itch, which has been thought to be owing to a scorbutic habit of body. We now know that the Itch is occasioned by small Insects, called by Linnaeus *Acarus*, which are the same with those in damaged flowers, and that it is entirely cuticular, and can only be cured by immediate application to the part affected. A Domestic medicine for this purpose is the Lapathum Bruised and infused in milk or Cream for 24 hours and applied externally. This I have seen used with success. Whether the Ring-worm is occasioned in the same manner as the Itch is Doubtful. It may be cured by the expressed juice of Dock. — *Radix Britannica*, one of the dock kind, has been used in the Scurvy, all ill conditioned ulcers, and Cancers of the Legs, of which Mr Golden gives an Instance in a gentleman, who after
all

10.

all other means had been tried, was cured
by an Indian of an ulcer in his leg, by ap-
plying it externally as a fomentation
and drinking a decoction of it. It often
happens that after an ulcer is diagnosed
by a Surgeon as Incurable, some old Wo-
man will undertake and perform the Cure
The medicine which they generally use is
the Dock, which is possessed of an Astringency
with its Astringency, by which it stimulates
the Vessels, and favors the formation of
good Pus. The use of it should be persis-
ted in some Considerable time —

Fedia or Fern kind The male fern has been
Recommended as an Anthelmintic, Dioscorides
Employed it for the Tape worm in doses of
ʒi. A certain French Lady obtained a per-
mission from the King for a Cure she
proposed for the tape worm, which was
found to be the Fern, it has been Em-
ployed for the Cure of Rickets, and all
Spasmodic Complaints. It is however
only a simple Astringent —

Trichomanes

Trichomanes or Maiden Hair This has been employed for its Pectoral Virtue and has been given in Symplics in Consumptions. But it is now properly enough neglected.

Muscus or Lichen kind grows upon barren Rocks, & mountains, in Europe, and America. I have set it down on account of the

Muscus Pixidatus or Culmosp which has been recommended in the Chin Cough by Wil-
=lis a man much employed in practice, but who on account of his exploded theories is perhaps not so much studied as he deserves.

He candidly owns the Chin Cough is a dif-
=ficult case in which the Physician seldom, but the old woman often succeeds, The Remedy they generally make up of is the Cupress, which is a simple Astringent without either taste or smell, Other Astringents have been recommended for this purpose, Burton recommends the Peru Bark, but it is generally very difficult to make the Child take a sufficient Quantity of it. The Chin Cough is not owing to any Acrimony in the Humours, for it

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it would then have been known from
the Earliest ages, whereas we find it was not
known in France before the Year 1714, It
was probably first brought into Europe from
Asia & Africa, It is Contagious, and has this in
Common with other Contagious Disorders,
that a person is never Afflicted with it but once
= A Common Catarrh is often mistaken for
the Chincough, but may be known from it
by the following History of the Disease -
The Chincough is sometimes Accompanied
with a fever, sometimes not, It comes on by
degrees, and is worse every other day, It is
at first dry, but after 40 or 60 Days an Ex-
= pectoration of Yellow Phlegm ensues, after
this the Disease increases - In the fit the
eyes swim in tears, Blood very often gushes
out of the nose and Ears. the fit continues
untill a Vomiting arises, and if it should
Cease without this Vomiting, it will soon
Return with repeated Violence, After
dinner if the Child is seized with the fit
of Coughing, it turns black in the face
sinks to the ground and is in great danger of

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of suffocating, unless a Vomiting is Excited by
tickling the Uvula and fauces with a feather.
On account of this the Child should never be
left alone. — As the Cause of this Disease is
a Contagious miasmata, we have not yet
discovered any thing by which we can either
prevent or cure this Disorder. All our attempts
therefore must be to Palliate the Disorder, &
alleviate the symptoms. — When left to
itself it will continue for 10 or 12 weeks, nay
sometimes for six Months, and the Children
generally in this Case are thrown into other
Disorders, some are carried off by a hectic fever,
others are Afflicted with an Haemoptoe. This
Disease is certainly of a Convulsive and spas-
modic Nature. If the Child is of a Robust
habit of Body, bleeding will be necessary, and
Emetics may be given on those days on which
they find themselves better. In the begin-
ning we should Employ musk, Camphor and
other Antispasmodic. When the Inflammation is
gone, and the Disease is become regular we
may give the bark, in Case the Child will
not take a sufficient quantity of it. the
Lupinus or some other Vegetable Astringent
may be given. —

If the disease is not cured by these means, A
Change of air becomes absolutely Necessary —
and it often happens that the disease is
cured by Changing the Air, even for a week or more

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All the unripe and Acerb fruits may be
recoined Astringents. It is of no consequence
which we use, as the Virtues of all are near-
ly the same — Of these the Sloe or
Prunella sylvestris is equal to any of the
others. The best method of preparing it is
by making A Rob. like elder Rob.

In Dysentery such medicines may be used
with success, as they are moderately A-
stringent, and at the same time Correct
Putrefaction. The Sloe may be employe
in it to advantage, for by its Astringency
it restores tone to the Intestines, and also
Corrects the morbid matter, and obviates
the putrid tendency — The Acerb fruits
are not so liable to an active fermentation
as the sweet, An Infusion of the leaves of
the Sloe has been recommended as a
Gargle

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Gargle in Spongy & ulcered Gums, and also
in the Angina when owing to Relaxation—
Berberis is an Astringent of a grateful
taste. It may be given either in Juice, Sy-
-rup, or Jelly. It is usefull wherever there
is a Disposition to putrefaction, Especially
in all fevers, Dysenteries, and Cholerae,
attended with it. Van Swieten recommends
the Inner bark as an Hydragoga—
Succus Raciae & Hypocistis are hardly
known at present, They are simple and
pure Astringents, and possess no virtues
to render them preferable to the others—
Catechu This is very improperly called an
Earth, as it is a Vegetable Exsicated Juice
prepared from the fruit of the Akkadalm
Tree, It is an astringent of considerable
efficacy. It has no smell, and rather an
agreeable taste, It is serviceable in laxity
of the Gums, also in Diarrhoea, and some
Dysenteries. It is the strongest and most
powerfull vegetable Astringent, The
Dose is from ʒss to ʒi.

Sarg

Sanguis Draconis has at all times been considered as a powerfull Medicine in checking Hamorrhages, probably from its being of a Red Colour, for we find it is not possessed of any Astringency, and does not deserve a place in Medicine, its only use is to form Alum into pills.

Hypericum formerly was much esteemed in Medicine, By its taste it appears to be an Astringent, It contains a large quantity of an Essential Oil, in small Cells, It is a powerfull diuretic. The Oil has been recommended in Epilepsy, and Maniac Cases, but here I do not understand how it acts, tho there are Testimonies of its virtues in those Cases.

Lysimachia Has been recommended by De Haen in Dysenteries, given in the Dose of ʒi morning & Evening, He says it Cured a recent Dysentery in three Days, and an old one in three Weeks, This medicine seems to be best in old Dysenteries— With regard to the use of Astringents in Dysenteries Physicians do not agree, the Difference in Opinion seems

to arise from their confounding the Acute and Chronic Dysenteries, which however are Different—The Acute is always attended with a fever and evident Signs of Putrefaction in the Bowels. Its Course is generally not longer than a week or two. The Chronic is not attended with a fever, tho' sometimes with a symptomatic one but this very rarely, it lasts for several months without any evident Signs of Putrefaction. These Disorders are to be treated in a Different manner, The acute is to be treated as a putrid Malignant fever, with diluent and Acid drinks, gentle laxatives, and Anodynes at night, which not only take of the Irritability of the Intestines, and the Tenesmus, but also cause a gentle Evacuation by the Skin, Especially when Combined with Spessac. or Tart. Emet. which Increase the Diaphoretic Virtue, In the Chronic we should first Endeavour to restore the Detention of the fluids to the Skin, In this Anodynes are hurtfull, as they weaken and Relax the Intestines, which are already too much weakened, In this gentle Purgatives combined with gentle purgatives may be

be upfull, by Restoring tone to the ^{te} Inspires, and
Evacuating at the same time the morbid matter,
Astringents are very hurtfull in the Acute
Dysentery.

Plantago is a weak Astringent, it has however
been employed in decoction for stopping haemorrhages
Dr Clerk says he has seen haemorrhages suppressed
by this, which would not yield to seemingly more
powerfull Astringents, In Infusion it has been
employed for the flower Album, Celsus recommends
a Decoction of the leaves for Consumptions.

Boyle has observed similar effects from the Car-
pae juice, - In this Country it is very often
used for the bite of a Rattle Snake, and other
serpents, It is used in Decoction, and drunk plen-
tifully, while at the same time the wound is
soaked with it, With regard to the bites of
serpents we may observe that if the bite
is made in a Vein, so that the Venom is
Immediately conveyed into the blood, there is
no cure, When the bite is in a Muscular part
there is not so much danger, and it may be
cured by a fermentation of warm water as
well as any thing else, The danger consists
entirely in the mixture of the Venom with
the Blood,

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If the poison has been taken into the Mouth,
and afterwards mixed with the blood it is harm-
-less. Rhedi gives us an Instance of a gentleman
who swallowed a glass of Viper's poison before
the Emperor Maximilian, without receiving
any bad effects from it. The people of Asia
and Africa, when bit by a serpent, suck out
the Venom, and never are hurt by it, unless they
have Ines in their Mouths by which it may
be carried into the Blood —

Polygonatum The flowers, leaves, and berries
of this, are of a very acid, and even poisonous
nature — The Root is remarkably mucilagi-
-nous, with Astringency. The root is used
with success in haemorrhoidal swellings and
bleedings. The Dose is ʒss boiled in milk ℥ij
to ℥ss and taken at once in the Evening —
When this Evacuation is critical Astringents
are improper. But it is sometimes owing
to a habit of Softness, by which the Blood
being prevented from returning to the Heart, is
poured ^{out} into the cellular membrane and
there forms Ecchymoses, which are kept
up by laxity. Here after we have removed
the Softness, Astringents will be very proper,
When

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When the disease is become habitual, it will be dangerous to check it when it appears but we may prevent the return thereof by a moderate use of Astringents, without any bad effects.

Sedum is a moderate astringent combine with a mucilaginous quality. Boerhaave says 3X of the expressed juice has cured the Dysentery. Boyle recommends it in the Apthae in Children. It is very usefull in all Inflammations of the mouth and fauces, A Poultice of the leaves has been used in burns and Scalds. The expressed juice of it is recommended to take of films in the Eyes. A poultice of the leaves is used for the Cure of Corns. Some have sought a Relief for these in Acid Substances, but this is very improper, for we know no Cure for Corns, but such as by obviating the hardness of the neighbouring part, will dispose the Corn to fall out. — and in this intention the Sedum answers remarkably well.

Urtica when young is employed in Food. A Decoction of it is said to Cure the piles.

An infusion of the leaves, is employed in Consumptions. The juice has been used in Hemoptoe. A Remarkable property of the nettle, is that when struck against any part, it excites an Inflammation, and burning, in that part. On this account it has been employed in torpid and Paralytic Affections of the limbs, to Excite the muscular motion. This by Physicians is called Urtication.

Viscus Quercus has always been famous for the Cure of the Epilepsy. When this is owing to Irritability & Mobility, it may be cured by the use of Astringents, and in this Case the Mistletoe may be very useful, as it changes the Constitution gradually by its Astringency. It is no matter from what tree we take it, for the Virtues are precisely the same in all. The Virtue resides chiefly in the Bark, the Dose is from $\mathfrak{z}\text{ss}$ to $\mathfrak{z}\text{i}$ in Substance twice a Day.

Uva Ursi is a species of Arbutus This has been employed in all Calculous Concretions and other disorders of the Kidneys & Bladder. It was first recommended by Linnaeus, & after him by Dr De Haan. He says it

6. does not dissolve the Stone, but mitigates the ^{117.}pains, enables the patients to retain their urine, and changes the bad state thereof. He says it also cures all suppurations of the urinary passages, when they are not Venereal. It leaves the pains arising from the Stone, tho' does not change the Stone in the least. Sometimes it entirely removes the pains, at other times it renders them tolerable —

De Haage's dose is 3℥ in Powder 2 or 3 times a day. — Frequently when the urine was fetid, purulent, acid, and so highly alkaline, as to change the Syrup of Violets Green, by the use of the Ura Efficit it was brought back to its natural colour & state.

The symptoms attending the Stone are not so much owing to the size and weight of the Stone, as to the bad state of the urine accompanying it, for we find that persons sometimes have Calculi of a considerable magnitude, without feeling any inconvenience from them, and at other times persons are afflicted with all the pains attending the Stone, without having any Stone in the Kidneys or Bladder. When

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When the urine is fetid, purulent, Acid, and Alkaline, the use of the uva ursi is very proper. It acts probably by its Astringency, Restoring the tone to the Secretory Organ, and Enabling it to secrete a healthy fluid — It is probable that all the most famous Lithontriptics, and even lime water, act by their Astringent Quality, for we frequently find Lime-water Relieve the symptoms without Changing the Stone, I have seen the Uva Ursi tried in three different Cases, In two it gave no relief but rather increased the symptoms, In one it gave relief, but the pains returned in a very short time, It is Probable that the relief which was given, in some Cases which De Haan gives, was rather owing to the Regimen Prescribed than to the medicine, for we find that the symptoms returned when the Persons left the Hospital, and were relieved soon after they came in —

Lectr

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Lect^y 10th 1785

The next Particular Astringents we are to treat of are, Cortex Granatorum & Quercus. which are strong and simple Astringents, as they are cheap and easily procured, we may apply them in External applications, as in the Proidentia Ani, in Children, the fermentation must be cold, for when used warm it will relax as much on the one hand, as the medicines will Astringe on the other, An Infusion of the Pomegranate, gives us an agreeable Gargle, in a Relaxation of the Uvula.

Cortex Simarouba was first brought into Europe in 1713 from Guinea where it is highly esteemed for the Cure of the Dysentery. It was employed in France in an Epidemic Dysentery in 1710 with very great success, I Employed it once with success in a Dysentery that would yield to nothing else, It was proposed as no Astringent quality. When given it excites Nausea, Vomiting and a Diaphoresis. It is of use principally in Chronic Dysenteries; The

¹²⁰ The Dose is Zij Boiled in ℔ij of water
to ℔ij and the Remainder divided into 4 Doses,
one of which is to be taken every 2 hours,
Its Virtue arises from its Astringent quality,
restoring the Determination of the fluids
to the Skin, which is of great Consequence
in the Dysentery—

Logwood is a weak Astringent, Insoluble
in our fluids, In decoction and Extract it is
much Inferior to other Astringents, from
all which I think it may justly be Ne-
glected.

Galls are Excrescences on trees arising from
the Puncture of Insects to lay their Eggs, In
practice we confine ourselves to those of the
Oak, and get them from foreign Countries—
Their Astringency is evident from their Be-
ing preferred for the making of Ink—
They are remarkable for giving out their
virtue in solution more copiously than
any other Vegetable Astringent, They may
therefore be used in External applications,
as in the Procidencia and in Children, They
should always be applied Cold, for the Rea-
son Above, Galls and Gentian, have cured In-
termittents, which would not yield even
to the bark—

Tongue Melitensis is a substance not known in our Shops, Linnaeus recommends it in Hamorrhages, Especially those of the Uterus, It is thought peculiar to the Island of Malta, but Dr Brown describes it as found in Jamaica, in his Natural History of that Island, He recommends it in all kinds of Hamorrhages in Doses from ʒij to ʒij to be repeated at proper Intervals, untill the effect is Produced, I have now finished Particular Astri-
=gents, and shall mention some general terms, which tho' they are not Astingents, may Occasionally Act as such.

1st Acids, Applied to the tongue they Contract, and Corrugate the parts, The virtues of the Fossile acids are similar, and they differ only in Degree, There is a Difference between the Vegetable and Fossile, The Vegetable in Opposition to the Fossile, is liable to ferment in the Primæ Viæ, and to have its Acid nature Changed before it enters the Blood, The Fossile Stimulate the organs of Secretion, which the Vegetable cannot do, unless given in large

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large quantities, There is also a difference
between the Vegetable Acids, The native
have both the Vinous, and Acetous, fermen-
-tations to go through, and are therefore
more, liable to be changed than the
fermented. The fopile Acids are very
proper in Hemorrhages, Especially
when attended with Fever, as besides
there Astringent quality, they are pos-
-sessed of a Sedative Virtue, by which they
diminish the Impetus of the Blood.

2nd Austere Wines act by their Acidity, They
are liable to the same objections, with the Na-
-tive Vegetable Acid, as they have generally
undergone the Vinous fermentation but im-
-perfectly, and have still the Acetous to undergo,
By retaining them their Acidity is encreased
and they are rendered less liable to ferment,
They may serve very well as Vehicles, When
a Choice of wines is to be made, the Austere
wines are to be Preferred in some Cases, as
were we want an Antiseptic fluid, as in
the Dysenteric Cases wines are very proper,
that they are not Astringent, but when
given

given in large quantities, generally prove laxative,

3^d ~~Antients~~ Bitters, When evacuations are owing to Relaxation, may by giving a temporary tone to the flat act as Astringents.

4th Relatives may act as Astringents, in stopping evacuations, when owing to Irritation, and Spasm, by taking it off, and by diminishing the impetus of the fluids.

5th Balsamics are termed Astringent from their use in increased discharges of the Urinary passages, as in Gleet, Gonorrhoea &c.

When given in large doses they prove Laxative, so that they cannot be with propriety termed Astringent, I conceive they act in Gleet &c. much in the same manner as Cantharides, by Inflaming the Urinary passages, to which they have a natural tendency.

6th Causticants are not Astringents, By this term we mean such substances as absorb moisture on the surface of the Skin. For this purpose every dry powder may be employed, Powder of Chalk, Boles, and Clays, have been used, but these form a hard

Crust

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Crust with the Mucus, Oatmeal is the best
as it Absorbs the Mucus better, and is not
so apt to harden, Exsiccants may be Em-
ployed, when perspiration is so increased as
to become Disagreeable, Here it would be
improper and even dangerous, to Check the
Evacuation by Astringents, but Exsiccants
will remove the Disagreeableness, without
obstructing the Perspiration, They are Employ-
ed in Erysipelas, an affection of the Rete Mucosum,
where they do not act by Repelling, but by
absorbing the Acid Mucus, which Causes
the Disease to spread over the Neighbouring
parts, When this disorder is confined to the
Extremities, there is not much Danger, but
when it attacks the Head, Face, and Breast,
it is oftentimes dangerous, In it Repellents
are not to be used, lest they should throw
it on some of the Viscera, and Cause it to prove
fatal, Oatmeal may be used to Absorb the
moisture, which it does best when Ap-
plied in a Cloth.

We have now finished Astringents, and
will take a short Review of what we
have Concerning them.

We

We observed that astringents where such Substances
 as increased the Cohesion of the Solid Fibres —
 We observed that they acted on the Nervous sys-
 tem, which is evident from there producing
 their effects in a much shorter time, then
 possibly could happen by means of the Circulation
 We found that astringents where indicated —
 1st In lacity of the Simple Solids, This we ob-
 served was generally a Constitutional defect, It
 may be produced by the too long application
 of Emollients to any particular part, in the
 Dickets, and where the parts have been
 Overstretched, 2nd In debility of the moving fibres,
 3rd In increased action of the Solids, when owing
 to Irritability, 4th In increased Evacuations of
 Blood, The Causes of these may be referred con-
 sider three heads, 1st Debility, and Relaxation,
 2nd Mobility, & Irritability, 3rd Increased Action
 of the Heart and Arteries, In the two former
 astringents may be useful, in the latter
 they are hurtfull, We should always em-
 ploy the least Stimulating Astringents
 as Alum. — When we exhibit them to prevent
 the Return of Hemorrhages, we should employ
 the weak Vegetable ones —

5. In ulcers, to bring on that degree of Inflammation, which is necessary for the formation of good Pus, & ^{but} In particular kinds of Inflammations, These we find might be owing as well to Debility of the Vessels, as to their strength, In the former Astringents are proper, in the latter not.

As the stopping of Hemorrhages, bears such a Considerable share in the use of Astringents we will here consider Hemorrhages, with their Causes, and method of Cure.

A Hemorrhage is an Evacuation of pure blood, from the Vessels of a living body, Stahl and his followers Divided them into Active & Passive. The latter is always owing to some External and Violent Cause, The active is Owing to an Increased Action of the Vessels, which is owing to Internal Causes, The Active is either Ordinary or Extraordinary, The ordinary, is when blood Comes from a part usually subject to Hemorrhages, as the Nose, Lungs, Uterus, &c, The Extraordinary, is when it Comes from parts, from which it does not Naturally issue as the inner angle of the Eye, tip of the finger &c.

The

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The active are also divided into the Natural and Pternatural, The Active ordinary, Natural occur only in Females, as in the Menfes, and Lochia, which are never called Hamorrhages, unless they are Incessant.

The Active ordinary, Pternatural are always morbid Affections, Those of a sanguinous temperament, are Subject to Hamorrhages, especially of the Lungs, hence these frequently die Consumptive, Those of a sanguine, melancholy temperament, and such as lead an Indolent high life, are also Subject to them, Such as have watery Excretions, and Breakings out in the Head when young, are frequently troubled with Hamorrhages, when old, Particular Seasons of the Year Contribute to Hamorrhages, they are more frequent about the Vernal, and Autumnal Equinoxes, They happen at every period of life, In Boys generally from the Nose, from 10 to 13 years of Age, Men are more Troubled with Hemoptoeis than Women, from the 18th to the 35 year of Age Women are sometimes Seized with a Vomiting of Blood, generally upon the Suppression of their

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Their Menfes, tho sometimes not, Pregnant
women are sometimes troubled with this,
The piles are Hemorrhages, which seldom ap=
pear, before the Vigour of the body is gone off,
about the 36th Year, A melancholy temper=
ament produces Hemorrhages, often the
Piles, men being of a more Roracious turn of
mind than women, are more Subject to them,
Women are sometimes troubled with the piles
During Pregnancy, — Women during Preg=
nancy are subject to a Hemorrhage from
the uterus, — The Hematuria, never attacks
women and seldom men, before the 60th Year.
When owing to External Violence, or stones in
the Bladder or Kidneys, it is to be considered as
Passive, — A Hemorrhage sometimes comes
on suddenly, but generally it is preceded by
by the following symptoms. —

Lect

Sept the 19th 1785

The symptoms generally preceding Hemorrhages, are, A sense of fulness and tension, pain about the part from which the Hemorrhage is to issue, The natural Excretions are Diminished a pale limpid dry skin, Diminished Perspiration, If the person has any ulcers, they become staltis, and Discharge little or no Pus, —

A Lassitude, and an Aversion to motion, A Colic of the Intestines, wind, and Borborygmi, in the Intestines, Hemiplegia, pains in the back, and Loins, often a Dimness of Sight, and paleness of the Countenance, The Tension increases untill the Hemorrhage breaks forth, upon the Cessation of the Hemorrhage all the symptoms, Termit, It frequently becomes Periodical, and returns Daily, Monthly, Yearly &c. — The Predisposing Causes are Various, the Antecedent may be referred to two Heads, 1st Such things as suddenly increase the Circulation, as Violent bodily Exercise, strong impressions on the organs of sense, External heat, the Hot fit of a fever &c

2nd

2nd A Partial Plethora, which Precedes Almost every Hamorrhage, It is owing to a Congestion in the Vessels, this Congestion is Caused by a general Plethora.

The Causes of general Plethora may be Reduced under 3 Heads; 1st it is owing to an Increase of Nourishment, while the Evacuations Continue the same, for as there is more taken in than there is Carried off, the Equilibrium will be Destroyed, To this head may be referred a large Quantity of Animal food, Especially when attended with Indolence.

2nd A Diminution of the Evacuations whilst the nourishment is the same, Here we must Consider the Quality rather than the quantity of the Aliment— Thus Animal food being less Perspirable than Vegetable, will be more likely to produce plethora than the same Quantity of Vegetable food, and Oysters, and fish, which are the least Perspirable, will most readily Occasion it—

The

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The food of young Animals has the like effects, A want of Exercise, may also be become a Cause under this Head, for without the fluids are not driven on with sufficient strength, and hence Congestions are formed in the Vessels, and the Respiration is checked, which is also occasioned from the Cold and moisture of the Atmosphere —

3^{rdly} A Suppression of usual Evacuations, to this may be referred, an advanced period of life, for on this we find the Evacuation by the Skin is suppressed, and inwardly the Menstr, A Plethora may arise from a Diminution of the Body, as the Loss of a Limb, for by this the blood which was formerly carried to that part, is carried into others, hence we often find Haemorrhages arise from the Loss of a Limb, A Partial plethora may be occasioned, without a general, An increased Distribution of fluids to a particular part, this may arise from, 1st The growth of the Body, Thus before Puberty we observe haemorrhages

most

most frequently from the Nose, arising from
the head ceasing to grow, and the same quan-
-tity of Blood still Derived to it, During
-mankind we most commonly observe the
-manhages from the lungs, In old people
the perspiration being suppressed, the
fluid is Derived to the Kidneys, hence in
old people the discharge by urine is greatest
and frequently haematuria, In young
people we observe the Arterious, in old the
venous Altho, This arises from the Differ-
-ent strength of the Arteries, When young
they are weak and lax, but when we become
rigid, and are endued with greater strength,
hence they propel the fluids into the Veins,
2^{ndly} The situation and Conformation of the
body, Thus a wrong Conformation of the Thorax
which is known by high Shoulders, long
neck, and narrow Chest, will often Occa-
-sion haemoptoisis, for here the lungs are
smaller, and as the same quantity of fluid
must pass thro' them in a given time,
as thro' the whole body, it will be more
apt to form Congestions, A Sedentary life
will produce piles.

A debility of a particular part, will contin-
-uate very much to haemorrhages of that
part, for as the Vessels in that place relax
they will not be able to resist the impu-
-tus of the blood, hence Congestions will be formed,
3^{rdly} Local, and partial Stimuli derive a greater
quantity of fluid into the part to which they
are applied, then it commonly receives, and
this head may be become Calculous Concreti-
-ons in the urinary passages, and hardened
faeces in the Rectum, the first produce Ple-
-maturia, the latter Haemorrhoids; Haemorrhages
from the Uterus are often Occasioned by part
of the Placenta remaining and acting
as a Stimulus —

4th Substances taken into the body, which
have a tendency to any particular part
will often Occasion Haemorrhages, thus Aloes
often produce the piles, and Diuretics often
bring on bloody urine, and Discharges
from the uterus in Pregnant Women
Emetics, will often Occasion vomitings of
blood, when strong and used frequently —

5th

- 5th An Increased action of any particular part, will also occasion Hemorrhages from that part, by producing too great a Determination of fluid to it; Thus we find Hemoptoe most generally arises from a violent Exertion of the Lungs, in Declaiming, Singing &c. And we find women who use Coitus frequently, are subject to Hematuria.
- 6th Suppression of Evacuations, as Checking the Perspiration, suppressing issues &c. occasions hemorrhages, by destroying the balance and Equilibrium, so necessary to our bodies —
- 7th Whatever prevents the return of the blood thro the Veins to the Heart may occasion Hemorrhages, Hence hardened faces in the Rectum, cause the piles, by compressing the Veins,
- 8th Infarctions of the Vessels, are another Cause of hemorrhages, for they prevent the same quantity of Blood, from returning to the heart, hence Regurgitation takes place and the Equilibrium is Destroyed —
- 9th Spasmodic Constrictions of the Extremities often occasion hemorrhages, and whatever causes Spasm, as Cold & moisture

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of the Air, Disturbing Sensations of the mind
as Grief, fear &c, which often occasion piles,
Habit contributes, to continue hemorrhages
how this happens is to us a mystery, but we
know, that habit has a great share in
this as well as many other Disorders—
The Proximate Cause is a Rupture of Vessels
or their Anastomosis, This may be owing—
1st to Increased Circulation, 2^d to a topical
Plethora, Partial plethora acting as a sti-
-mulus, is not sufficient to produce plethora
it is generally accompanied with Spasm—
How a rupture of Vessels can be produced by
plethora, is Difficult to Determine, All
that can be said on this head is but Conjec-
-tural, What to me appears Probable is
that our frame is so admirably Constructed
-ed, as to Remove any Obstructions formed,
For this purpose nature will make up
even of the most Dangerous Expedients—
Hemorrhages are always at hand to assist
her— The Cure of Hemorrhages must
be adapted to the Cause producing it—

J—

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If it is owing to a Calculous in the urinary passages, the Cure is to be performed by taking away the Calculous, If during Pregnancy a Hemorrhage arises from the uterus stimulating the Uterus, we must deliver the Woman.

LECT^{re} the 20th

Independant of the Cause, the Cure of Hemorrhages rests upon three Indications, 1st To diminish the Action of the heart and Arteries, and to divert the blood from the part, the first part is to be done by the Antiphlogistic Method, that is bleeding, gentle Laxatives, Cooling Drinks, Spare Diet, and an absence from light and Noise, To divert the blood from the part we commonly employ Diaphoretics, Combined with Opium, —

Draughts of Cold water, or water impregnated with Acids, Clysters of pure Cold water, Blisters, Cupping, warm Pediluvia, will all tend to divert the Blood from the part.

2nd To give Constriction to the ruptured Vessel.

3rd To prevent the Return of the Hemorrhages, For both these purposes Astringents are commonly Employed.

These

These as we said before are of two kinds, *fossile*,
and *Vegetable*,—As the *fossile* are more *Powerful* and
strong in their operations, they are chiefly
to be *relied upon* in any *Emergency*, Those
commonly used are the *Preparations of Lead*,
and *Iron*, *Alum* when is also used with suc-
-cess in *hemorrhages of the Uterus*; When
the *hemorrhage* is owing to *increased Ac-*
-tion of the Heart and Arteries, *Astringents*
should not be used until their action
is *diminished*,—When owing to *Relaxation*,
and *Irritability*, *astringents* are proper—
when owing to *Irritability*, we should *Com-*
-bine Opium with the Astringents,—
Cold may act as an *Astringent*, in *External*
topical Applications, Thus *Cold water* or
Vinegar, applied to the *fore-Head* or *private*
parts, will *suppress a Hemorrhage from*
the Nose, *Astringents* are also of service
in *External Applications*, Thus an *Infusion*
of the *Bark*, will *check an Immoderate Dis-*
-charge of the Piles, To prevent the *return*
of the *Hemorrhage*, the person should keep
from the *Occasional Causes*, *Bleeding* has
been *recommended*, but it should always
be

be in small quantities, Topical bleeding may be very serviceable, We should to prevent the Return, also use the weaker Vegetable Astringents in small Doses —

Emollientia are such Substances as relax the Rigidity of the Solids, diminish their Cohesion, and introduce a larger quantity of moisture, All Substances containing mucilage, Oil, or Water, are Emollients, Warm water will answer every intention of emollients, Of the Particular Emollients —

Radix Althæa is equal to any other, it may be applied Externally, in Swelling & Inflammation, As a Pectoral, it is also used Internally, An infusion of ℥j of the Root, in ℔ij of water is of great Service in Acrimony of the Fauces, This is also Excellent in Chronic Dysenteries, with Pains, and Gripings, Supplying the natural mucus, of the Intestines, which in this disorder is abraded, A Decoction of it is employed in Nephritic Cases, The Decoction is very proper in violent purging Occasioned by two severe & Cathartic, acting as a Demulcent, The Root boiled in Red wine, makes an Excellent brush for the teeth, to preserve
and

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and keep them Clean. The root may be
given to Children to Chew, when teething —
and is Preferable to those Substances Common-
ly given. Applied Externally, it takes of the
Pain arising from Blisters, and the Decoc-
tion drunk plentifully, will prevent
the Stranguary, which often arises from
the use of Blisters, — Applied Externally
it mitigates inflammation, maturates
abscesses, and removes pain arising from them.
Linfes may be employed, in the same
disorders as the Althaa, Linfeed Tea is of great
Service in arid Urine, Nephritic pains,
Coughs, Purify, and all Inflammations,
The meal is sometimes employed in
Doultices, to Relax, maturate, and take off pains,
The oil is not so apt to turn rancid as
other oils, It is used Internally, and in
Clysters, in Calculous Cases, and the Nep-
hritic Colic.

Gum Arabic & Tragacanth Possess
nearly the same Virtues, and indeed
the Virtues of all the Emollients are so
much Alike, that we must determine

The

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the use of one in Preference to another nearly
from Convenience, Probably for Internal use, Sage,
and Salep, will answer every good purpose
and for External the Tabinacca, if there be
a Poultice of Bread and Milk, is perhaps equal
to any of the more Compounds, Especially
if oil or Lard, be added to keep it moist, and
to prevent the fissures of the Skin, which
often arise from the application of Emollients,
I said above that all Substances containing
water, oil, or mucilage, were Emollients
and that warm water would answer every
Intention to which any of the others might
be applied, this naturally leads us to the
Consideration of the Hot Bath The Ef-
fects of this are not simply emollient, they
are also Antispasmodic, and may also prove
Stimulant, The use of it was introduced in
Early times, in warm Countries, In Greece, and
Rome, it was not only used as fashionable,
but also as a Cure for many Disorders, In
the warm Countries it may be used with
advantage daily, In the Cold Countries its daily
use does not answer so well, But in these
it may be employed with considerable
advantage.

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Advantage in Medicine, We will therefore treat as fully of it, as the Nature of the Subject will allow, — In the first place we will consider its effects, and the manner of Operation — By a Hot Bath or Balneum, is commonly meant, a Submersion of the Body in warm water, We do not take it in this limited sense, but mean the application of warm water to the Body in any manner — There may be two kinds, simple, and Impregnated waters, We will here treat of the Effects of simple water, as those of the Impregnated, are nearly the same

The effects, of Hot Baths are owing to heat, and moisture, We shall first Consider these Separately, from which their effects when joined together may be known

Water dissolves the mucus with which the skin is naturally supplied, and washes off all uncleanness adhering to it, It opens and distends the pores, increases the Perspiration, and prevents all diseases arising from an obstructed Perspiration, It takes off also the Acrimony of the Skin, which causes diseases, It is evident that these effects

Effects must be more Considerable from warm water than Cold, It also softens and relaxes the Cuticle, Its effects are not Confined to the surface of the body, for it penetrates the Scarf Skin, and Relaxes the Nerves under the Skin, which are expanded all over the Body, It has even been supposed to penetrate the Skin and Muscles, and to Relax the internal parts as ligaments &c. — but this appears rather Improbable, It may however be taken up by the Absorbents, and Carried into the internal parts, and thus Relax them, By passing the Lymphatics, it dilutes the fluids, washes away Acrimony and prevents Obstructions, The warm bath has been found to have good Effects in fevers —

The effects of heat upon the body are very Considerable, these effects are proportioned to the different degrees of heat, The Common heat of Baths, is from 80 to 112 Degrees of Fahrenheit's Thermometer, If below no Considerable effects can be produced, and if above 112, the use of the Bath cannot be

be continued but a short time without pain,
Heat enlarges and expands the fluids,
mollifies the Solids, Relaxes the Cuticle, and
nerves, which by Sympathy produce an
universal Relaxation over the Body, When
long applied it proves a powerful Stimu-
lus, We may on many accounts sup-
pose that Heat is the Stimulus to our
Body, After a person has remained a long
time in the warm bath, we find the
veins become turned, this is owing to
the heat Expanding the fluids, and Re-
laxing the Solids, and by acting as a Stimu-
lus, Deriving a greater flow of fluids
into them - We now proceed to speak
of the Diseases, in which the Hot bath
is useful.

By detaching and preventing Lentor, by
washing away Acrimony, and Relaxing
the Skin, it shakes off Obstructions, and
prevents Congestion, it is therefore good
in all diseases of the Skin and Cuticle -
As it increases the Insensible perspi-
ration, it will remove diseases arising
from obstructed Respiration, as the
Dysentery

¹⁴⁴
Dysentery, Diarrhoea, and Colic, Many Disorders tho' not owing to obstructed perspiration, yet are kept up by it, these it will remove, by its relaxing, and deturging quality, It will by this means prevent dyspepsia arising from vitiated humours as the Scurvy, which Might probably be prevented, by the daily use of the Hot Bath

Many disorders are owing to Contagious Miasmata taken into the body, by increasing the perspiration it will carry off these miasmata, and thus be of service in all Contagious Diseases, as the Pox, which tho' it will not cure of itself, yet it will tender the Cure of it much easier to other Remedies, It renders the body very susceptible of Cold, and therefore the use of it, is much better in warm Climates than Cold, but even in the warm Climates it is dangerous to expose the body to the air after Bathing, and the Cold is to be avoided. Galen

It takes off all obstructions in the Skin, and Cuticle, and is therefore useful in Phlegmons, and all kinds of Inflammation, except the Erysipelas, By its encreasing the Circulation of the Blood and promoting the Influx of the Nervous

Power, it will be of use in Atrophy, On these
Accounts also it may be of service in Par-
-tial Palsies, and even in an Hemiplegia, when
not owing to a Congestion of Blood in the
Brain, As it extends its effects over the whole
System, it will be serviceable in Rigid Ten-
-dons and Ligaments and in Contortions, It
may also be of service in Contractions of
the fingers and toes, by promoting the In-
-flux of the Nervous power into the Extensor
muscles, and Enabling them to overcome the
Rigid flexors, — The Hot Bath extends its
effects to the Stomach and Intestines, It will
therefore frequently remove Spasmodic Constrict-
-tions of the Uterus, As Colics which will
often yield to this when nothing Else will
relieve them, As there is a Consent between
the Kidneys and the Skin, by Increasing the
Perspiration, by the Hot Bath will take off
Spasm in the Kidneys, and will often relieve
the pains arising from Action in the Uterus —
It is a most Efficacious Remedy, in the Hyster-
-ic and Hypochondriac Diseases, It mitigates
Spasm in every part, Its effects are not
Confined

confined merely to the muscular, but are
 extended also to the Circular parts, It is also
 used in fevers, We will therefore in the next
 place speak of its utility in these Cases

Lecture the 21th
 The warm bath was much employed by the
 Ancients in fevers, Amongst the Moderns
 Dr Gilchrist strongly recommends it, and
 gives us several Instances in which it was
 used with surprising Advantage

It takes off Spasm, renders the Circulation Equable,
 Causes a Derivation of the fluids from the Head,
 It causes sleepiness, and disposes to Sleep, it also
 promotes the Insensible Perspiration

Part of the water being taken up by the Absorb.
 =ents, it will act both as a Diluent and Atte-
 =nuant, Pediluvia are of great advantage
 in Topical affections of the brain, Delirium,
 and Subputus Tendonum, deriving the
 fluids from the Head and Brain

Pediluvia are useful in Colic of the feet
 which they relieve by increasing the Cir-
 =culation in them

Determination

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Determining a greater Quantity of Blood to
them, and Increasing the Respiration—

In fevers Persons sometimes void large quan-
-tity of pale limpid urine, This is generally
A sign of an Approaching Delirium—

Pediluvia will relieve this Symptom, It
has been Common in this Case to Cut up
Animals Alive, and apply them to the Soles
of the feet, They act only as warm water
by heat and moisture, and the water
ought to have a preference to this and Ev-
-ery other, This likewise favours much of
Cruelty, and ought not to be used on that
Account— Heat and moisture when Com-
-bined prove powerfull Emollients, they
are also highly Antispasmodic, The Hot
bath is not always to be used in Inflamma-
-tory Cases, It is hurtfull in Topical Inflam-
-mations, as it proves A Stimulus under
Some Circumstances— Wherever fevers
is owing to Debility, the hot Bath is
very usefull, It is Particularly usefull in
Nervous Fevers, and such fevers as depend
on universal Spasm, where we want A
moderate Stimulus combined with An
Antispasmodic

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Antispasmodic—After Child Birth, women are
sometimes very restless, Here Opium is general-
ly given, and we cannot certainly make use
of a better Remedy in some Cases, but it some-
times proves Ineffectual, and in these Cases
the warm Bath will generally be of service,
The Bath is generally applied to the lower
Extremities, and with Propriety both for
Convenience and Advantage, for the Spasm
is generally strongest in the feet, as they
are the most remote from the Heart, and it
may also be applied with more safety—
Where the patient cannot be moved we must
employ fomentation, This is best done by
Blankets dip't in warm water, We should
during the application take care not to wet
the Bed clothes, least the patient should take
Cold, The application may be continued for
a half hour, hour or more, as the Case re-
quires—Warm Pediluvia causes a derivation
and Revulsion from the Head, they are for
this Reason employed to preserve the Head
and face in the Small Pox, Care should be
taken in this Case not to let the patient
sit too long in the water, least by its

Stimulus

Stimulus it should raise the Pulse and quicken the Circulation, and thus prove the means of producing a more plentiful Eruption. The patient also should avoid keeping his face over the water, least by relaxing that part a greater number should break out than otherwise would.

By taking of the Rigidity and tension of the Part to which it is applied, it will communicate its effects to those parts which sympathize with it, hence warm bathing appears proper to promote Menstruation and hence we find it used in suppressed Menstr. and Piles. As the warm Bath by its Stimulus determines a greater flow of Blood to the part to which it is applied, it will take it off from other parts, When there is too great a Determination of Blood to the Head, Pediluvia will take it off and carry it to the feet, and hence will be of service in Delirium, Lethargy &c. Many however have objected to their use in this Case, on account of their Stimulus, but this is a weak objection, for their effects as Stimuli are not certainly extended to the whole System.

As

As some part of the water is Absorbed, it will
pass the Lymphatic Vessels and Glands, and
wash away Acrimony, Dilute Viscosity, and
take of Obstructions in, and Clean the Glands,
Hence it is of use in the Scrophulous, which is
a Disease of the Lymphatic vessels and Glands,
By a bath made of Broths or other Nourish-
ing substances, persons have been sustained
in Cases where Deglutition was obstructed—
The warm Bath has of late been much more
used than formerly, The Able Dr Astrucque
in his Travels to Siberia observed that the
people used it in that the Climate for all
Diseases arising from obstructed Respiration
with great success, and with a degree of Heat
very great, Experiments were after this
made in France, & England, to Determine the
Degree of Heat, which the Human frame
might bear, It was found by some Gentle-
men at London, that they could remain in
a Room heated to 240 Degrees of Fahrenheit's
Thermometer, 77 Minutes without any
Detriment, and even that 260 Degrees might
be submitted to with Tolerable Ease—

This

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This shews that we can live in a degree of heat higher than that of our Body, The contrary opinion was held by Boerhaave & others, This would lead us to conclude that our frame has a power of generating Cold as well as heat. — The warm Bath is a very efficacious remedy in all diseases arising from Obstructed Respiration, and in Dropsies, and Venereal Cases —

That there is a Considerable Absorption in bathing may be proved from an Account we have of some Sailors, who being cast away, took to the Long Boat, and being ready to perish thro' thirst, they either thro' accident or Design threw themselves into the sea, and found in a short time their thirst quenched, and had recourse to this method afterwards whenever they were thirsty —

Bay salt dried before the fire, reduced to an Impalpable powder, quitted in a Cloth, and after being sprinkled with Vinegar, applied to the sole, of the feet, and worn day & night between the Stocking and the shoe, has been found to relieve a violent head Ach, and

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and Colic of the feet, which resisted every
other Remedy, It was said in a former
Lecture that Salt was a powerful Stimu-
-lent, hence you may see that it acts
much in the same manner as the warm
Bath, by its stimulus determining the
flow of humours, and increasing the Cir-
-culation in the part, by which means
it brings on and keeps up the Perspiration
in considerable Quantity, This was impart-
-ed to me by a Physician who had for a long
time been troubled with a Head Ach, and
Colic of his feet, for which he had taken
all the Medicines, that he had ever found
Recommended for this Purpose, but to no effect,
He applied to the most Celebrated Physicians
in Edinburgh, and London, and other places,
and was at length returning home with-
-out any Relief, when he met with an old
friend who promised to Cure him, if he
would stay with him a few days, he there-
-upon used the Salt in the manner above de-
-scribe, and in Days time the Gentleman
was perfectly Relieved of his Complaint
He afterwards Recommended it to others, who
found

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found great advantage from it, I might have
recommended it in some Cases, and to good effect,
From this I would advise you never to neglect
the Experience even of old women, for
many Valuable Remedies have been found
not first by Quacks, and Illiterate People —
We have now finished the Consideration of
Emollients, and are in the Next place to
proceed to the Consideration of these Medicines
which act on the moving fibres, of which
the first Class are the Stimulantia —

Lectth 22nd

Stimulantia

These are such Substances as Excite the Ac-
-tion of the Moving fibres, and do not
operate on the Dead fibres, Of Stimulants
there are two kinds, the direct and Indi-
-rect, By the latter we mean such
Stimuli as act on the organs of Sense
by which a Perception is formed in
the Senses: Common: which by acting
there determines the Nervous power
more copiously into the whole or
R

A part of the Nervous System

The direct are such as act Immediately on the moving fibres, without the Sens. Com.

With regard to their manner of Operation, Stimulants are divided into the Mechanical, where there operation Depends upon and can be explained from these figures. And Chemical, where the operation depends upon some peculiar property of the Body, with which we are unacquainted. Most of the Stimulants we employ are of the Chemical kind.

The operation of stimulants is of 2 kinds, 1st that which is Common to the whole system, and Indiscriminately affects every fibre, 2nd that which is Confined to some particular part. The action of stimuli is Confined to the Nervous System, We will here briefly say something on the Nerves, as they are the part on which Stimuli act, And as Dr Monro has made some Discoveries on them wh^{ch} throw great light on their subject.

We will not touch The Anatomical

Description

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Descriptions, which undoubtedly you
will have else where
Dr Harris, observes the human species
to have more brain in Proportion to
their size, than any other Animals,
but not more Nerves, from hence he
concludes that the brain is not merely
formed for the Origin of the Nerves,
but it is also the seat of the mind.

And from some monstrous Appearances,
of fetters, being born with little or no
brain, in which Nevertheless the
Vital & Animal functions were Car-
ried on, he supposes that all the Ner-
vous Energy do not Originate in the
brain, but that the Nervous Energy
is generated all over the Body.

He found the Diamater Surrounded
every nerve to its ultimate Ramifications
and it is Probable it served the same pur-
pose to them, that the Driestum does
to the bones, (Insects are not furnished
with a brain,) He supposes the tone
given to a limb by stimulus as
friction

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friction is owing to the generation of the Nervous energy in the limb, but this is not all for there is a Considerable Consent between the Nervous and Vascular Systems, by which a greater Quantity of fluids is Determined into the part. He also found that the Different Nerves formed Anastomosis, with each other by which Connections are formed between the Different parts of the body, independant of the Brain. He likewise observed that ganglions are formed by the fibres of the Nerves being mutually blended, and supposes their use is to generate the Nervous Energy. The Nerves towards their terminations run in a serpentine form, that they more easily admit of Distention, when the Muscles act.

From what has been said we may conclude that many diseases of the Nerves are Entirely partial, and that they do not Originate in the Sensorium: Common as partial palsies, and hence that they may be Cured by partial Applications. That

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That by the Anatomizing of the Nerves
without the Sens. Cord. Various Sympathies
are formed in the Human Body, From
a Particular attention to these Anatomies
may we not be enabled to account for
the Various Sympathies which take
place, These Considerations will tend
to banish all metaphysical Reasonings,
which of late have become so fashi-
onable in Physic

Stimulants are indicated in all Cases where
the motions of the System are Languid,
inconstant weak & Slow, - Hence they are
Indicated, 1st Where the motion of the
blood is suddenly stoppt as in fainting &c.
2nd Where there is a Sluggishness of the
Humours, as in the Cachexy, as also the
Chlorosis, a disease often arising ~~often~~
~~arising~~ from affections of the Uterus,
but may also arise from a Sluggishness
of the Humours, 3^d In Gangrenes
where owing to an Oedematous, Hydropic,
& Cachectic States of the Body,
when

^{N^o 38}
Where gangrene is owing to Inflammation,
and Increased Action, Stimulants are Hurt-
full, but where owing to a Diminished
Action Stimulants are usefull —

4^{thly} In Intermittant fevers to prevent
the Return of the Cold fit, which is al-
ways attended with Inertia —

Stimulants are also Indicated in Nerve-
ous disorders, 1st Particularly Palsies —
the Causes of Palsies are Various, in some
Cases Stimuli may prove hurtfull,
but wherever a palsy is owing to a
weakness and Inertia of the nervous
power, Stimulants are highly usefull,

2nd They are likewise indicated in Ver-
tigo, Lethargy, Apoplexy &c, Apoplexy has
been divided into the Sanguineous, and
Serous, and the application of Stimuli
has been confined to the latter, some
mention a third Species of Apoplexy,
which they say is owing to an Inertia,
of the nervous power in the Brain —

Here Stimulants are Certainly Necessary,
if there is any such Species, which
is

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Very doubtful, In the Serous Apoplexy,
Stimulants may be of use applied
Externally, at a Distance from the
Head, to Cause a Revulsion, from the
Head, and in this manner they may
also be serviceable in the sanguineous
Internally employed there use is very doubtful,
3^d They are indicated in Headachs accom-
panied with paleness, Coldness, and
Languor, of the whole Body, Particularly
when they are of a Nervous Nature —
When Headach is owing to Inflammation
Stimulants are Improper, When it is
External, Blisters and Other will give
Relief sometimes, but when it is Inter-
nal, and affects the Brain, all our
efforts will generally prove Ineffectual
Stimulants are likewise Indicated in
flatulencies, Acidity, and Stagnation of
the Alimentary Canal, which are
commonly owing to weakness, They
act here by exciting the action of
the Stomach, and Intestines — The

The Hysteria, and Hypochondriac Diseases are often accompanied with Spasms, &c. Stimulants are therefore indicated in these Diseases, They act in these as Antispasmodics, They have also been used for the Cure of the Gout, Of their use here, I shall speak under the Head of Bitters —

Stimulants are Contraindicated whenever the action of the Heart and Arteries, is too Vigorous, Hence they are improper in all Haemorrhages, Inflammations, and fevers arising from this Cause — But when these are owing to Debility, as is often the Case, Stimulants are highly proper — By the Constant and long Continued use of Astringents, the Mobility, and Irritability, of the moving fibres, are weakened, and their tone at length Destroyed — We should therefore avoid the use of Stimulants as much as possible, for they will Destroy the tone of the Stomach, and the whole System, in the same manner as the too free use of Wine —

The particular Stimulants are very numerous, D'Allen has a great number of them, We shall here only treat of these that deserve to be employed in medicine.) Of these the first is Melissa or Balm, The Virtues of this are very Inconsiderable, and happily for the patient, as it is the substance so universally employed, in tea, for the common drink of the Sick, An Infusion of it may be of service in fevers attended with Languor

Lavender, an infusion of this may be usefull, in diseases arising or owing to *Stuita Trigida*, i.e; such as are Accompanied with languor, debility Head-ache &c. It may also be usefull in Tremblings, Paralytic Affections of any of the parts, A Dulness of hearing, and sight

Marjoram is usefull in all Cases of Languor, and Debility, and is a powerful Cephalic, It is usefull in the Obstructed Asthma, as it promotes Expectorations

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Expectoration, and is possessed of a gentle
Antispasmodic quality, it is the strongest
of the Class except Marrubium.

Thyon and Pennyroyal, The latter expels
flatulencies, and is a powerful Antispas-
-modic, It will promote the Menstru-
-ation, where there is Obstruction is owing to a
Spasmodic affection of the Uterus —
They are both serviceable in diseases of
the Breast, which are not attended with fever,
Many of the Mints have been employ-
-ed in Medicine, The Pepper Mint is
the best of all, The water Mint may
be employed with advantage in
Vomitings, Hiccups, Colics, and all dis-
-eases arising from flatulency or a dis-
-tension of the Abdomen by Air, Hence
it has obtained the appellation of Ste-
-machic, Pepper mint will relieve
an Obstruction of the Menstru-
-ation, when owing to Spasm

Sage in many Cases proves a good Eme-
-tic, Sage has been employed in the same
Manner

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Hammer, and for the same purposes with
Balm, but as it is more efficacious Re-
medy, we should be cautious not to Em-
ploy it were there is any symptoms of
Inflammation. Besides its Stimulant
it is possessed of an Astringent Quality—
it affords a Concretion like Camphora
Van Sweiten recommends an Infusion of
it for night sweats, which follow, and
often attend other Diseases, and are
owing to Debility, It has also been
used in Tremblings, Palpits, Heartburn &c.
It is employed by the women to prevent
Abortions, when become habitual, and
is attended with good effects.

Umbelliferae. of these are the following,
Anise, Caraway, Fennel, Cummin, Cou-
=ander, Wild Carrot, and Candy Carrot, The
part of these in which there Virtue Re-
=sides is the Seeds, The Roots of the follow-
=ing are Principally employed Aniseida,
Saxifrage, Lovage, and Italian Hawthort.
They are all Carminative or Antispasmo-
=dic, assist digestion, relieve Head Aches,
arising

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Rising from Cudity, dissipat flatulencies,
and Cure Colics, and other Disorders, arising
from flatulency, Angelica has
been Accounted Alexapharmic, in Con-
tagious Diseases, but it has no propen-
sity to any Diaphoretic

Anise, and Fennel, are the most Power-
ful, and most Agreeable, A Tea of the
Seeds is very proper for Children who by
Reason of the Abscency of the Milk
are troubled with flatulencies, and grip-
ings, They are much better than the
Spiritous Liquors generally given by Nurses,
The Wild Carrot has been employed in
all Calculous Concretions of the Kidneys,
and Bladder, but it does not dissolve the
Stone out of the Body, nor are its Diure-
tic Virtues Considerable, it seems however
to act as an Antispasmodic, mitigating
the pains arising from the Stone &
Gravel, which may be Considered as a
Spasmodic Affection, and the Symptoms
we know may be Alleviated by Antif-
spasmodics.

The

The next order are the Siliquosa, of these
are Radish, Horse Radish, Mustard, all
the Cress kind, and Curvy grass

These are all employed for the Cure and Re-
-suscitation of the Curvy, They are the
only Stimulants, which we can employ,
with safety in this Disease, they increase
the Evacuations by sweat, and Urine, and
Correct the bad tendency of our Fluids

Mustard Seed is one of the Safest and most
efficacious medicines, taken in a dose
of one or two Table Spoonfuls a day

From $\mathfrak{z}\mathfrak{i}$ to $\mathfrak{z}\mathfrak{j}$ of Mustard in powder or
infusion, will afford us an excellent Emet:
The action of which is Confined to the Sto-
-mach, without being extended over
the System, It may be worked off with
warm water, in which some mustard
has been Infused, It is principally of
service when we only want to Evacu-
-ate the Stomach, Mustard whey is
an excellent Remedy in Lethargy, a
Serious Apoplexy, and in all Cases of
Laziness and Debility, as in the last
Stage of a Nervous Fever

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If the Emetic qualities of Mustard does
not take place, and it is Carried into the
Intestines, it will prove purgative
Some part of it will enter the Circulation, and
it will prove a powerfull Stimulus to the
system in general, encreasing the secretions
by urine, sweat &c, Externally applied as
in Sinapisms, they excite the motion of
the Heart and Arteries, more powerfully
and Cause a Derivation of fluids from the
part affected more effectually than Blisters,
We may often apply Sinapisms to good
effect, when our patient will not suffer
Blisters to be applied, Sinapisms however
ought not to be substituted for Blisters
in all Cases, for in Inflammatory Fevers
it is evident they will prove Hurtfull,
Hoarse Radish is Possessed of similar Virtues
with the Mustard, it is employed in Infusion
in Dropsies, owing to Debility, where it acts
as a Diuretic, and Stimulant, Asquith
if it has been recommended in Coughs,
hoarseness, and Particularly the Thoracic
affections, all the Siliquosa are said to
remove Hoarseness, they act by Stimu-
=lation

Stimulating the Mucous Glands of the trachea
The next order are the Alliacea, Garlick,
Onions, and Leeks, The Virtues of these
are similar to those of the Siliquosa,
Garlick, has been employed for the worms
Externally in Poultice, and is said to
kill them applied over the Navel, and
Soles of the feet, - Garlick is Diuretic and
Diaphoretic, It appears to be very much
like Asafoetida, In the Catarrhus Senilis,
A Disease arising from the Diminution
of the Natural Secretions, by which
means the Humours are thrown upon
the Breast and Lungs, all we can do is
to Palliate the Disorder, by increasing the
Respiration, For this purpose Garlick, and
Asafoetida, is the best medicines we can
Employ, The Garlick should be taken
morning and evening, and swallowed
whole, for by this its Virtues are better
Extracted, and it will more effectually
Prove Diuretic, and Diaphoretic
Garlick has been recommended for the
Stone, but it has no effect There

Boiled

Boiled or Toasted Onions are said to promote the Maturation of Boils and Abscesses, but they will answer no better, than any other simple Agreeable Mucilage into which they are converted by Boiling, for their Acrimony is all dissipated.

Lect, the 23rd

The next order is the Conifera of the Pinifera Fir, Pine, and Juniper, The virtues of these are nearly the same, and are owing to the Turpentine they contain, They are more efficacious according to the quantity of Turpentine they contain, The Fir, and Pine Tops, are very often employed in Diet Drinks to Purify the Blood —

An Infusion of them proves Diuretic, and Diaphoretic, and hence is of service in the Scurvy, eruptions, and foulnesses of the Skin, These eruptions are owing generally to obstructed Perspiration, Independantly of any Impurity in the Blood.

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It is of no Consequence, which *Sir*, we use, as
they all have similar Virtues.

The wood and Berries of Juniper, agree in
Virtues with the *Sir*, or Pine, They are much
employed as Diuretics, & Carminative.

An Infusion of Juniper Berries may be
given with advantage in Spasms, and Colics,
owing to Flatulencies, but it ought not
to be used where there is any Inflammation,
It may also be of service in the Pectus
Asthma, when not attended with Fever.
Van Helmont recommends, them for the
Dropsey, A Mob of them may be a very
good Vehicle for Diuretic Medicines,
with which it corresponds in Virtues.

An Infusion of the Berries has been recom-
mended in the Nephritis, & Calculous Con-
= cretions, but very Improperly, as these
are generally attended with Inflammation,
A Spasm of the Bowels will sometimes
so much resemble A fit of the Nephritis -
as to Deceive both the patient and Physi-
= cian, In this Case an Infusion of Juniper
Berries, will afford Relief most Effectually,
and

And it was probably from some such
 Case, that it first obtained the Reputation
 of being good in the Lephritis, Improperly —
 The next order are the Balsams which
 are resinous, oily Bodies, Poriferous, and of
 a Consistence between ointment and Oil,
 They get these Names from their Agree-
 -able Odour, and their Preventing Putrefac-
 -tion, They are either native or Artificial
 as also either Liquid or Dry —

Bals. Copaiba, has been much employ-
 -ed, for stopping of Glects, It does not as
 some have supposed, by any Astringent
 quality, for when given in large Quant-
 -ties, it affords an excellent Laxative —

It is evidently a Stimulus, and has a Parti-
 -cular Tendency, to the urinary passages,
 Glects are generally owing to Debility —
 Stimulants therefore may stop Glects
 by giving a tone, and exciting Inflammation,
 Bals. Copaiba may cure a Glect therefore
 by bringing on a degree of Inflammation
 in the urinary passages sufficient to
 stop

Stop the mouths of the Glands, It ought
not however to be used untill the Inflam-
-mation has been removed, Thorrhic tenden-
-cy to the Urinary passages, it has this ad-
-vantage, that it will exert its effects
without Stimulating the whole System

It is also employed for the Cure of the Haem-
-Rrhoea, which is often owing to a Relaxation
of the Uterus, and this by its Contiguity to
the Urinary passages may be in some
measure affected, By a long Continued use
of it we may Cure the Dysuria, even if ow-
-ing to general Relaxation

Combined with Salt of Tartar, it is recom-
-mended in the Picturous Asthma, also in
Glandular Swellings and Obstructions,
We should however be Carefull not to
Exhibit it were there is any Fever

The Bals. Peru is used Externally were
a Nerve, Tendon, or Sinus, has
been Injured or Lacerated

Internally it is used from 20 to 40 Drops
at a dose, to remove the Colica Pictorum,
and the Palsy consequent from it

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It is employed in Consumptions and Ulcers
of the Lungs, but its use in these Cases is
doubtfull, on account of the Inflammation
generally attending them, In the Petri-
-ous Asthma it is employed not im-
-properly, as it will by its Stimulus
promote Expectoration, and prove Diu-
-retic, and Diaphoretic —

The Bals: Tolu, is posessed of the same
Virtues, and is employed for the same Diseases,
with the Peru, Turpentine has much
the same Virtues, It has been recommend-
-ed in the Sciatica; when given in large
quantities, and Peristed in for a long
time, It may be of Service in habit-
-ual Costiveness, owing to Spasms, and
hence we find it given in Clysters
in Obstinate Costiveness, were it acts
as an Antispasmodic, Turpentine mix-
-ed with the Yolk of an egg, has been em-
-ployed in ulcers of the Intestines, with
Success, A fumigation of it is said to be
service in the blind piles —
Quon

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Gum Guaiacum is supposed of similar
Virtues, it has been particularly recom-
mended, in Arthritis, and Rheumatic Com-
plaints, in the last it has even been
supposed to be a Specific, It acts however
by its Diaphoretic quality, Tart: Emet:
may be combined with it to strengthen
its Action, ℞ij of it Dissolved in ℞ij of
water, and ℞ij or ℞ij of Tart: Emet: added
will afford us an elegant Remedy, A Spoon-
full of which may be taken Every 2 or
3 hours, to those who cannot take it
in this way, it may be given in Pills.
We should be cautious not to use it where
there is any Inflammation, it is therefore
Principally of Service in Chronic Rheu-
matism, and in these it is sometimes
very Serviceable,

Myrrh, is an Exudation of some Vegetable
Substances, collected by insects like Bees,
and by them Hardened, up in the hollow
Trunks of trees, Taken in large quantities
it stimulates the Stomach and System
in general.

H

It affects the urinary passages much in the same manner as the Balsams, It was the substance employed by the Ancients to preserve their dead bodies, externally applied it resists Putrefaction, and hence is used in foul and Putrescent ulcers, and to prevent and cure Gangrenes, Internally taken it will not cure Putrid Disorders, It has been reckoned Emmenagogue, but it has no Particular Virtues, acting as all other Stimulants — Gum Benzoin has generally been reckoned Pectoral, The Saline substance, commonly called the Flowers is reckoned Remarkably so, but its use is rather Hypothetical when given in the common dose from ℥ij to ℥v, We must give it in doses of ℥xi or ℥xx, to obtain any certain effects from it, and even in this dose they are Inconsiderable —

The next Substances are the Woods. Of these the first is Guaiacum, This has commonly been reckoned very efficacious in Venereal Cases, but the effects appear to be owing to the sweating and

Guaiacum

Emaciating process accompanying it up
The method of using it was as follows 3℥ of
of the wood was infused or macerated in 1℔ of
of water for 24 hours, and then boiled untill
one half was evaporated, The patient was
put into a Warm Room, and Drank
plentifully of the Decoction warm, and
by this means excited a sweat, He con-
tinued the use of it for 24 Days, All this
time he lived on a very spare thin diet,
Drinking frequently of a weak infusion
of the wood, It is probable that warm
water would in this manner answer
equally well.

Sassafras, has been employed in the
same manner and for the same intention,
with Guaiac; the best method of using
it is in infusion, A continued use of
it may be of service in Cachexy, Flou-
r albus, and Blotches of the Skin.

Sassaparella, was used for the same
purposes and in the same manner with
Guaiac: and was frequently combined with it,
it

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It was however neglected untill M^r Fodge
again introduced it into Practice on the
following Occasion, A Surgeon at London
had done great Service in Venereal Cases
by what is called the Lisbon Diet Drink,
the Preparation of which he kept a Secret,
Many Conjectures were formed concerning it,
and amongst others it was thought to
be a Decoction of Sarsaparilla, This was
therefore tried and found to be of Service par-
-ticularly in Chronic venereal Complaints,
where Mercury had been previously giv-
-en, without which it did not answer so well,
Where a Salivation had been employed
without effect, where there were ulcers, pain,
in the Bones &c, the Sarsaparilla was
found good, It is however much inferior
to the Lisbon Diet Drink, for this will
cure all venereal Complaints, whether
Mercury has preceded its Exhibition
or no. The Cortex Mezoreon, approach-
-es nearest to the Lisbon Diet Drink
in Virtues

It is often found efficacious in removing
Venereal Exostoses, and pains in the Bones.
Take of Cort. Mezger: and Licquorice Trochasc.
℥iij, boil them in 3℔ of water untill
1℔ is evaporated, Let the patient take
this Quantity every 24 Hours. and in
six weeks time he may expect a Cure.

Rad: Contrayeva has been reckoned Dia-
phoretic, and Alexipharmic in Contagious
Diseases, It is also given in low Nervous
fevers, to support the Vis Vita, and pro-
mote sweat in Doses from 5 to 10 grains
every 2 or 3 Hours, It may be given to
one ℥j without any sensible effect.
and hence appears to be of little or no use
but to trifle with, and to confirm the old
usage, if it does no good, it will do no Harm.
We have now finished what could be
recor'd, according to Botanical Analogy.

The following agree in sensible qualities,
Aromatics. Are such Substances as join
to an Acid, pungent Taste, A fragrant
Power of the Agreeable kind. They are
all

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All possums of an Essential Oil, and speci-
-cally heavier than water, and are in gene-
-ral Productions of the Torrid Zone —
Cinnamon is the most agreeable and
best Cordial Stimulant in all Cases of Languor.
The oil of it is very good in Languor and De-
-bility, arising from Autumnal Intermitts.
We should always Chuse the oil that rises
toward the end of the Process, It is frequent-
-ly added to Purgatives to prevent the Spasms
arising from their use, It is also added to
Rhubarb to increase its purgative Quali-
-ty, It is the safest and most agreeable
Stimulus, to lying in Women. It is also
Carminative, and is therefore useful
for Children who are Troubled with Gasp-
-ings, and Flatulencies — When a Sup-
-pression of Menstrue, is owing to Spasms,
an Infusion of Cinnamon is a safe and
Effectual Remedy —

Cloves, are more Acid and Stimulating,
The oil is sometimes added to Stimulat-
-ing Medicine, A Drop of the Oil
is also employed in the Tooth Ach,
to

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To destroy the sensibility of the Nerve, It
is also used in Paralytic affections of the Tongue.
They are also employed Externally in
Colics, Vomittings, and Hiccups, They are
usefull applied to the Stomach of Infants
when Troubled with Flatulencies, A Tea
of them may also be used in these Cases
when they are not attended with Fever.

Rutmegs, when fresh and recent are pos-
-sessed of a Narcotic, and stupifying quality,
From this and their Astringent quality
they are usefull in Diarrheas, and Dysenteries,
They are also usefull in Debility of the Stomach.
Mace is possessed nearly of the same Virtues
as the Rutmeg, and is a production of the same
Tree.

Pepper, when finely powdered will ex-
-cite Hiccups, A Table Spoonfull of it, is
taken unbruised, in a glass of Rum by the
Country People, to prevent the Cold Fit
of an Intermittant, which it very often
Does, but if it does not the patient is
sure to suffer for it when the Hot Fit
comes on.

Serpentina

Serpentaria Virginiana, is a powerfull Stimulant, Combined with some aromatic Flavour. It powerfully resists Putrefaction, and hence is employed in Malignant fevers. In the beginning of these fevers, where there is an Inflammatory state, Stimulants are hurtfull, but in the Decline when the Constitution is weakened they become Necessary, and hence Snake Root is one of the Best Remedies we can Employ — It is also an excellent Remedy in Autumnal Intermittents, It is likewise an excellent Preservative against Contagious Diseases. It is hurtfull generally in Venereal Intermittents, on account of the Inflammation which generally takes place in these. Snake Root Tea is very good in Autumnal Intermittents. This is likewise excellent in nervous fevers. It ought only to be used when there is no Inflammation. It may however be employed where a fever is combined with Inflammatory symptoms, provided it is of the Intermittent kind —

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It is usefull for the Nausea attending Au=
=thoral Remittants, A strong infusion
of it is very serviceable for the violent
Hiccups attending Remittents, It is a
Powerfull Antiseptic and strongly Re=
=sists Putrefaction

Ginseng is in great esteem in China,
where they think it will prevent and
cure all Diseases and prolong life, They
value it so high, as to give 3 pounds of
Silver for one of this, it is however a
Medicine of little or no Efficacy, It may
make an agreeable and safe masticatory
much preferable to the More Nauseous Tobacco,
Cascarilla has been employed in putrid,
and malignant fevers, It has likewise
been recommended in Intermittents, but
it is by no means equal to the Peruvian
Bark, Digner, employed it in the Dysen=
=tery, Besides its Stimulating quality, it
is likewise possessed of an Astringent and
Narcotic Virtue, it may therefore proba=
=bly be of service in Chronic Dysenteries.

Lect 24

¹⁸ Lect: the 24th

SS

The next set that agree in sensible qualities are Bitters. — Wormwood, this as well as other Bitters has been generally reckoned serviceable for Worms, but on no good foundation, for worms will live a considerable time in Bitters without showing any uneasiness — A long continued use of Bitters, however by giving tone to the Intestines, may prevent the future generation of Worms — It has always been esteemed for its Diuretic Virtues, and hence has been employed in Dropsy. This virtue may be increased considerably by combining it with Sal. Tart. An infusion of it combined with this is one of the best medicines we can employ in the Dropsy. It has been used for the Cure of the Jaundice, but can have little or no effect in removing the Obstructions, on which this Disorder depends, it may however be useful by its bitterness supplying the place of the Bile, A Decoction of it with Common Salt, is employed Externally in Gangrenes —

A long use of it affects the eyes with an uneasy
Suppression, weakness, and Inflammation, attended
with Head Ache, these effects seem to depend
on its Narcotic quality.

Carduus Benedictus, was formerly employed
for Intermittants, where the bark is now given,
In the beginning of Intermittants, where bark
cannot be given, an infusion of Carduus
benedictus, may be employed to Advantage.

Camomile was the substance most gene-
rally employed where the bark is now, Be-
fore that was discovered, It preserves all the
Virtues of bitters. Camomile Tea may used
with advantage, in Intermittant & Remittant
fevers, where there is a tendency to putrefaction
Acting by its Antiseptic Virtues, It preserves
this virtue in common with all bitters as
well as of checking fermentation, Camomile
Tea is very proper to work of a Vomit, as it
does not relax the Stomach so much as warm
water, and likewise acts as a Diaphoretic
Sandy, is said to preserve animal bodies
from Putrefaction, The women employ it
for the Hysterics, They also use it as a
Purgative to promote the Menstrual discharge.

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It is a Bitter, and is therefore employed in
the Dropsy, in the same manner as wormwood,
The seeds are reckoned good for the worms, but
are no better than other Bitters, —

Orange Peel, contains a large portion of
Essential Oil. It appears to be heating and
stimulating, It is very useful in Spasms
and flatulencies, arising from Indigestion were
there is no fever —

Leper Centuary, and Gentian, are very pure
bitters, Gentian is said to strengthen the stomach
and excite appetite, A continued use of it
will destroy the tone of the stomach, The
Root is employed in fistulous ulcers, as a
Tent to keep open the lips, and prevent their
growing together, An Infusion of Centaury will
answer the same purpose, (Camomile Tea)
Centaury, and Gentian are employed in
Intermittents, but they are much inferior
to the Peruvian Bark —

Columbo Root, is a strong pure bitter, and
a powerfull stimulant, I have found it
serviceable in checking bilious vomit-
ings, in Intermittant fevers, when the
Stomach

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Stomach was very irritable, and the Vomiting would not yield to the medicines generally given in such Cases, The dose is $\frac{zj}{ij}$ infused in half a pint of boiling water, and two table Spoonfulls to be taken every 2 or 3 Hours, I have found it successful in this way in several Cases, It is likewise said to be a powerfull Antiseptic, but I have never Experienced its effects in this way, The Gentian approaches nearest to it in Virtues, All these however are much Inferior to the famous,

Peruvian Bark This was first made known to the Govern^r of Lima by the Natives. He communicated it to the Count of Chiriqui whose Lady lay ill of an Intermittant in 1630, It was by him first brought into Europe in 1640, In 1649 a Jesuit brought a large quantity of it to Rome, where it was sold by their Fathers at an exorbitant price, and hence it obtained the name of the Jesuits Bark. It was however afterwards neglected
untill

1646
till 1649 when it was again employed
by Sir Robert Solbat, who kept it a se-
cret, and performed wonders with it -
Louis the 14th purchased the secret from
Sir Robert, for a premium of 2000 Guineas,
and Pension of 160 Guineas ^{a year} During life
since which time it been universally employed.
Good bark may be known by its weight,
freshness, bittleness, and shining appen-
-ance when Broke, but the best me-
-thod is by making a Decoction of it in
Rain water, when if the Decoction becomes
Thick, and Deposits a white Sediment it is good,
It is a bitter Combined with an Astringent,
joined to an Aromatic, It does not act by
any specific property, as is commonly sup-
-posed, for its operation may be explained
from its properties, and were it possible
for us to make by art, a bitter Combined
with an Astringency, joined to an Aromatic.
it is possible it would answer every
purpose of the Bark, It is useful in
those diseases, in which there is a

General

18th

- General or Partial debility, but is hurt-
-full in those attended with Rigidity, Ple-
-thora, and Inflammatory symptoms.

Hence in Vernal Intermittants which
are generally accompanied with an
Inflammatory Diathesis, the bark is
hurtfull. But in Autumnal, which are
attended with Debility, and Putrescence
the Bark is usefull. When obstructions
are owing to Relaxation & Debility,
the bark is useful, but when they are
Occasioned by rigidity, and too vigorous
action of the heart & Arteries, it is hurtful.
The best method of giving it is in
substance, from ℥ss to ℥j at R dose to be
Repeated every 2 or 3 hours, or oftener ac-
-cording to Necessity. In decoction or
Infusion, it does not answer so well
as the operation is not Certain on Ac-
-count of its being more apt to turn off
by stool, or urine, than when given
in substance, and defeat our Intentions,

The

¹⁸⁸
The Bark is indicated in all Periodical
Splemic affections, which depend on Mo=
=bility, and Irritability of the system—
It acts here by restoring tone to the system
We should avoid the use of it where there
is any Inflammation, until this is re=
=moved, Thus the (Chin. Cough may be cured
by a Periodical Administration of the Bark,
On those days, in which the fever is Mode=
=rate, but its use is very improper dur=
=ing the Paroxysm, in which there is a
Constriction already formed, and here it
will do mischief, The Bark is also useful
in Periodical Colics, In Epilepsies, which
depend upon mobility, and Irritability,
the bark may sometimes be of service
by taking of the Relaxation and restor=
=ing tone to the system, — It is also of
great service in Gangrenes, that are ow=
=ing to Relaxation, and Debility of the
Solids, no regard should be paid here to
the quantity, but it should be taken
as often and in as large doses as the Mo=
=mach will bear, from ℥℥ to ℥i may
be

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be given every 1st or 1/2 hour, it may
also be employed in fermentation Ex-
ternally at the same time, It acts here
by strengthening, and exciting the action
of the sound parts, and thus causing
a separation of that which is Morbid —

Gangrenes are sometimes owing to In-
flammation, and an encreased action of
the Heart and arteries, here bark is high-
ly Improper, and Acidulated diluted wine
are the best Remedies —

Inflammation as was said in a former
Lecture, may be owing to a Relaxation
and Debility of the Solids, in this Case the
bark may be employed with Advantage,
But where it is owing to an Encreased
action of the Heart, and Arteries, the
use of the Bark is evidently highly Impro-
per. — The principle and most Univer-
sal use of the bark has been for the
Cure of Intermittant & Remittant fevers,
in which it even has been thought to be
a specific, Its virtues however manifestly
depend upon its bitterness combined with
astringency, joined to an Acrida —

Bitter

Bitters, and Astringents have in all ages been employed for the Cure of these Disorders, And I have as I said before seen a Mixture of Gall and Gentian, Cure an Intermittent, in which the bark has been tried to no Purpose — Various opinions have been framed concerning the Cause of Intermittents, The Ancients placed it in a morbid matter within the body, exciting the fit, and thought the disease was to be cured by evacuating this morbid matter, But this will evidently appear to be ill founded, if we consider that the disease may be cured without any Evacuation, as by giving Anodynes before the fit used to come on, And that Evacuations alone will not cure the Disease, Emetics do not cure this disease by Evacuating the Contents of the Stomach, for we find they will answer as well if not better, when they do not provoke vomiting, as when they do — And the Bark does not encrease any Evacuations, and yet performs the Cure

Other

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Others place the Cause in an Accumulation and lentor of the humours in the Extreme Vessels, on the Skin, But is quite the Contrary, for we find such an Accumulation takes place in the Viscera.

A third opinion is that this disease is a Nervous affection, with a spasmodic Constriction, of the Vessels on the Skin, and hence places the Cause in the Nervous System. This Opinion seems most probable, and many arguments may be adduced in favour of it. The medicines employed to cure the disease are of an Antispasmodic nature, Affections of the mind will often cure this Disease, they will also sometimes produce it, Nervous fevers often become intermittants, and Vice Versa, some have endeavoured to place the Cause in an inertia of the Nervous fluid, The regular return of the Paroxysms, has afforded a matter of Speculation at all times, Many opinions have been formed to account for it, some have lately attempted to do it from habit— This however will appear false if we consider that to render it habitual it must

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must have continued for a considerable time
and that Custom can regulate the 1st and 2nd
Paroxysms, These however are the most re-
gular, and the 3rd afterwards become more
irregular, whereas if the Return was owing
to habit, the longer they continued, the more
regular they should become, untill they should
at length become as constant as the motion
of a Clock — The bark should not be used in
intermittents, untill we have restored the
determination of the fluids to the skin —
Emetics generally precede the Exhibition of the
bark to produce this determination to the skin,
which they will more effectually do if a dose
of Laudanum be given after they have operated
It is likewise usefull to prescribe natural Salts
as Diaphoretics, In general we may observe
that autumnal Intermittents are more tedious
than the Vernal, The Autumnal are generally
attended with putrid symptoms, and the Vernal
with Inflammatory, The bark is best Calculat-
ed for the Autumnal, As soon as a person is
seized with a fit he should be put to Bed,
During the Cold fit he should drink nothing
at all, but if he has a nausea and Inclination
to vomit, he should encourage it by drinking
warm water —

by which means the fluids which before
 were accumulated in the Viscera will be Dete-
 -mined to the Skin, and thus relieve the Paroxysm.
 During the hot fit he should Drink Medi-
 -cated Diluted Drinks, During the Intermiss-
 -sion the patient should avoid the use of
 all such things, as tend to Refrigerate.
 His Diet should principally be Animal
 Broths, with Vegetables well boiled, If the
 patient is troubled with flatulencies, and
 pains in the back, and loins we may
 give a gentle Purgative, If the Paroxysm in
 the 5th day, is not worse than the preceding,
 the successive Paroxysms become milder we
 may expect our patient will have a speedy
 recovery, Especially if Eruptions appear about
 this time, under the Nape and about the
 hips, and the urine Deposits a Catarrhus se-
 -diment, If our patient is weak and the Pa-
 -roxysms, is long and Violent, we should make
 no delay but administer the bark immediately
 to prevent the following Paroxysm, We should
 give it in as large quantities as is possible
 the nearer we can give it to the fit the
 more effectual it will be, We may order
 from ʒi to ʒj to be taken every hour or
 half hour, We should always give it in
 substance

substance if possible, where the stomach will
 not retain it in solution, we may employ
 infusion in large quantities, After we have pre-
 vented a Paroxysm, we must next endeavour
 to prevent Relapses, For this purpose the
 patient should take a few doses of Bark for
 some time after the disease has left him.
 Especially on those days on which the dis-
 ease used to return. Persons inhabiting a
 low marshy situation, are more subject to
 Relapses, than others, for these therefore a
 Change of Air is necessary, or at least they
 should confine themselves to the upper sto-
 ries of the house. Relapses are more com-
 mon in Autumn, than in Spring, Every
 thing that weakens and enervates the body,
 will dispose to them, Every thing of this
 kind should therefore be avoided, Intermit-
 tents resembling other diseases are cured
 by the use of the bark. Vide Tapot
 The Bark has been unjustly accused
 of changing Intermitents into
 Dropsy, Jaundice &c

Lecture 25th

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The bark is employed with safety, and advantage in Remittant and Intermittent Fevers, which are accompanied with a Putrid Diathesis, (Clegdon) It acts in these as a powerful Antiseptic. Whether it is useful in putrid fevers which are without Interruption is Doubtful, It may act as an antiseptic in the Puera via, but as it does not enter the Circulation, it cannot extend its effects over the System, (D. Hilary) It however we employ it in the beginning of Putrid Fevers, it will prevent their future progress, It may also preserve healthy persons from the Contagion, after the Putridity has advanced and has entered the Circulation vegetable acids ~~are the best~~ with Acidulated, diluted drinks, are the best Remedies we can employ — They may be accompanied with the use of the Bark, Here it will answer best in Infusion, Especially in wine, as we want its antiseptic virtues without its Stimulating ones, in Camp fevers Nervous fevers tending to Putrefaction, when the fluids are affected

Affected, Medicines which act on the Prima Via are not so good as Antiseptics, here Vinous Infusions or Decoctions of bark are most proper.

Bark is also indicated in Hemoptoe, and other Hemorrhages, When these are owing to an In-
-creased action of the heart and Arteries the use of the Bark is dangerous; But when they are owing to Relaxation, and Debility, the bark is a safe and advantageous Remedy, It is employed to prevent the Return of Hemorrhages, which it does by giving tone to the system, and strengthening the Relaxed Vessels. The bark is an excellent Remedy for weak and feeble Constitutions, or for weakness of any part of the Body, Chewing to the quantity of An ounce a week will be sufficient in these Cases, It is also very proper in this manner for persons who are subject to Inflammations of the throat upon taking Cold. The bark is likewise employed in bad ulcers to produce good & Laudable Pus, it acts here by exciting that degree of Inflammation which is necessary for the formation of good Pus. —
The

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The Bark is also employed in the Small Pox, probably from observing its good effects in ulcers, — to make the Pustles fill, and bring the Disorder to a happy issue; We should employ it carefully in the disorder, immediately after the eruption of the pustules, ~~It~~ ^{It} only be employed with safety where the Constitution, is so much weakened and debilitated, that nature cannot struggle with the Disease, but sink in Contest, Here it will raise the Pulp, and produce that degree of Inflammation necessary to produce pus, In this Case some Physicians employ wine, and even were there is a Delirium, — If Petechiae or purple Spots appear we must have immediate Recourse to the Bark, Where an Inflammatory Diathesis, or too vigorous an action of the heart and Arteries, takes place, the use of the bark is certainly highly improper, here Antiphlogistics, & bleeding, — The Bark is by many used in the Suppuratory fever, but its use here is rather doubtful — This is occasioned by the pus being absorbed, and taken into the blood, The best method ^{is} to carry it off by

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by gentle purgatives, and employ Acid drinks
and Antiseptics — The Bark has been
employed with success in Scrophulous sores
and ulcers, These are generally owing to Relax-
-ation and flaccidity of the vessels of the Sys-
-tem in general, The bark is therefore of
Service, by giving tone and strength — This
however is a disorder, often not to be cured
by medicines, and hence the bark fails
Sometimes of performing a Cure —

The Bark has been said to Cure Cancerous
Complaints, but very probably an ulcer
of a bad quality has been mistaken
for a Cancer, and it may be doubted
whether the bark ever succeeded in a
Cancer, On account of its Efficacy in
ulcers, some have thought of extend-
-ing the use of the bark to internal
ulcers, and for this Reason have employ-
-ed it in the Consumption, It must
however evidently be hurtful in this
Case on account of the Inflammatory
State which Accompanies it —

It has likewise been recommended in Nephritic Cases, but it answers no better than any simple Astringent, It has also been extolled for the Cure of the gout, We shall speak of the use of this and other Medicines in this Disorder Presently—The bark may be employed with advantage in the Pickets if accompanied with a proper Regimen and the use of the Cold Bath—

This is a Disease in which the greatest Relaxation takes place, and extends even to the bones of the Body, The patient cannot expect ever to recover perfectly, at least with regard to Shape and figure, but by a proper use of Astringents, with the Cold bath Solid Animal food, night dry Cold Air, the Disorder may be Considerably Relieved—

The Pharmaceutical treatment of the bark has been partly delivered already—We should give it in Substance if possible, and in as large quantities as the Stomach will Bore—

Where

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Where the patient either cannot or will not
take the powder, we may give it in infu-
-sion, either in a watery or spiritous Li-
-quor, the best probably is wine Cold infu-
-sion is best, for by boiling it loses its
astringency, Brandy better. Retain
more of the Astringent properties of the
bark than those made of wine —

The Extract has been thought to be of
superior strength, but the most that can
be said of it is that it is Equal in Virtue
to the bark and therefore we must
give it in the same Quantity with
the bark in substance —

The Tied bark is of more Efficacy than
the Common Bark, With regard to its sen-
-sible qualities, it is evidently stronger,
It appears to answer the Description of
the Bark first employed in Europe
which was of superior Virtues to that
used afterwards, Dr Saunders who has
written a treatise on it thinks it is
the same bark with the Common, only
that

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that it is taken from older trees, and
here is stronger, in the same manner
as Oak bark which is stronger when
taken from old trees than from young,
I have employed it ever since we have
been able to procure a sufficient quanti-
-ty of it. - I have found it Cure Intermittents
in a short time, in which large quan-
-tities of the Common bark, had been taken
to no purpose, I do not recollect ever to
have been disappointed in my expecta-
-tions from it. - A Root has lately been
Discovered in Surinam, which is said
to rival, or even to excell the Bark
in the Cure of Remittant, and Malignant
Fever. - It is called Radix Quassia -
from a Negro named Quassi, who first
discovered it, from this it is likewise
called the Quassi Bitter, - It is the strong-
-est and purest bitter in nature -

D^r Warner of antique, says it has been em-
-ployed with success in all kinds of Pu-
-tles, Intermittent, and Remittant fevers.

where

Where the bark had failed, The patients te-
tain it better on their Stomachs than the
bark, — In Surinam the Inhabitants Em-
ploy it as a preservative, from the Dange-
rious remittants so common there

It may be given either in substance or
infusion from ℥℥ to ℥i for a Dose, it yields
its qualities either to water or wine
When employed as a preventative it may
be taken in a vinous Infusion —

Acorus verus or our Common Calamus is
a Stimulant and Astringent, It approaches
in virtues to the bark, It is possessed of
more aromatic, acromony, and Essenti-
al Oil than the Bark, On account of
its stimulus, it is employed to Excite the
appetite, and assist Digestion, It is usefull
in Colics, and flatulencies, arising from
Indigestion, It may be usefull in the
Catarrha vesicæ, and Asthma Phtisicum,
by promoting Expectoration, which it
does by its Stimulating Virtues

Salicarius says he employed a Decoction

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of it in wine, for suppression of Urine
with success, It may be of service in Pa-
ralytic affections, It may be given Combin-
ed with steel, in a relaxed tone of the Stomach.
Chamaepitys, This with other bitters form
the Gout powder, commonly called the Duke
of Portlands powder, because he published
the Recipe, after it had cured him of a pain-
ful Hereditary Gout. Take of Aristolochia,
Gentian, tops and Leaves, Germander, the
tops of ground pine, and Centuary, each
an equal quantity, Reduce these into a
fine powder, A Dram of this is to be taken
every morning, and the person is to fast
for an hour and half after taking it, for
three months, after this the person is
to take $\frac{3}{4}$ of a Dram every morning
for three month more, After this he
is to take $\frac{1}{2}$ a Dram every morning for
six Months longer, After this it will be
sufficient to take $\frac{3}{4}$ every other morn-
ing, This Course must be continued for two
Years before the person is to expect any Be-
nefit from it. Bitters have at all times
been

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been employed for the Cure of the Gout, even
by the Ancients. They distinguished the Gout
into the Sanguineous, Bilious, and Pituitous,
In the Sanguineous they used the Lancet freely,
In the Bilious also they Bled, and in all Em-
-ployed Stimulating, Gripping Purgers, afterwards
they put the patient on a Course of Stoma-
-chi Bitters, which they generally gave in the
form of An Electuary, with Honey, 3j R Day,
for 12 months, with a Purg. Every 2 or 3
months. They did not however give these
indiscriminately to Every Constitution, but
allowed them to be hurtfull to those of a
bilious, and usefull for those of a Phlegma-
-tic Constitution, - Almost all who used the
Duke of Portlands powder, died Apoplectic,
in a few years, after being freed from the
Gout, as happened to himself, and many
others in England, Dr Cullen remarks
that the same happened to 12 Gentlemen
who used it in Scotland, Dr Gaubius re-
-marks the like Consequences in Holland,
and Calius Aurelianus, takes notice of
the

the like effect in his time By the use of ²⁰⁵
bitters, the tone of the stomach, is destroyed,
and it seems as if it was rendered incap-
-ble of throwing the Gout upon the Ex-
-tremities, and thus it falls upon other parts
as the Brain, Instance of a Gentleman in Italy

The natural and salutary appearance of
the Gout, is in the Extremities, in a topical
swelling and Inflammation, Nothing therefore
should be attempted for this, unless we could
at the same time ^{intitely} eradicate the Disorder
This is not to be done by medicines —
Something of the kind may be done by a
proper use of Exercise, and a strict Regi-
-men, as a milk diet, This may some-
-times cure the Disorder, but it ought on-
-ly to be attempted in young persons, and
those of a strong and healthy Constitution
The proximate Cause of this Disorder has
been long inquired after, Many opini-
-ons have been ^{formed} concerning it, but none
are sufficient, for they will not account
for all the Phenomena which occur

The

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The most Probable is that it is lodged in the nervous system, for if it was lodged in the simple Solids or Fluids, it could not have escaped the accurate Inquiries made after it, This is also supported, from the disease being brought on by such things as affect the nervous system (Substances Concrete) and also from the quick transition of the Gout from one part to another. — Vide R. Case in London Med. Essays —

Lecture 26th

The next Substances are, Dandelion, Endive, Lettuce, and Succory, These have constantly been supposed of a cooling nature, but for no other Reason, than our using them as Salads, They have been recommended for resolving obstructions in the Liver and other Viscera of the Abdomen. Boerhaave, Van Swieten and others, say they have employed the expressed Juice of Succory & Dandelion, with good effects in these Cases, The Dandelion, and Succory are Possessed of similar Virtues —
They should be taken in large quantities

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to produce their effects, and persevered in a
considerable time, a Coffee Cupfull 2 or 3 times
a Day — Indian Turnep in its present
state is very Acid, and if taken in large
quantities, it is even said to be Deleterious,
Vinegar is said to be the best Antidote for
it. It loses its Acrimony, by drying, Brit-
-ing, or Roasting, and is then employed
as food by the natives of this Continent —
When taken in a moderate quantity it
stimulates the Stomach, excites appetite
and promotes digestion. On account of
its Diuretic Virtues, it is employed in Drop-
-sies, and on account of its pectoral Virtues,
in the Asthma pituitosum. It is likewise
employed in Paralytic affections, both
internally and Externally, and sometimes
in Intermittants, from $\text{Gr} \times$ to $\text{Gr} \times \times$ at a
dose — Master wort affords a good Masti-
-catory for the tooth Ach, It is also employ-
-ed in Paralytic affections. The root pow-
-dered is said to Cure Intermittants —

Mixed

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Mixed with Hogs Lard it will Cure ting-
-worms, It is a very Acid Stimulus were
such is required, - All the kinds of Ouris
are very Acid, the Acrimony resides prin-
-cipally in the Root -

The Florentine Ouris is a very strong Eukine,
not only Causing Sneezing when taken
into the Nose, but also Inflammation of
the Nose and Head - Internally where it
proves a very strong Cathartic, it is used
as an Hydragogue (Vide Counc. med. Gray in Dupuy)
The root is to be macerated in Cold water,
which the patient is to employ as Common
drink - For this purpose our Common water
Flag, answers very well, M^r Colson has
found it to be a very strong Cathartic, and
Diuretic -

Wine is a powerful Stimulant, The too
liberal use of it is hurtful, by incrustating
the System, and disposing to the Stone & Gout,
If use moderately it excites the Action of the
Stomach, raises the Spirits, and banishes
Sorrow and Care

But

But after the use of it, the person finds himself
 Relax'd, and Debilitated, in proportion as his
 spirits were before raised by the use of it—
 We are ^{however} not to speak of its common use as
 a part of diet, but of its virtues as a Me-
 dicine, — Properly administered, it may
 prove an Excellent remedy in many
 Diseases — It is of service in all Cases of
 weakness & Languor, It is of service in Indi-
 gestion, and weakness of the Stomach, in
 Hypochondriacal. It assists digestion by
 exciting the Stomach into Action upon its
 Contents, and thus we find nothing sooner
 Relieves the oppression ^{arising from} ~~after~~ a full meal
 than a glass or two of wine after it —
 It is very good for Hypochondriacs, It is
 an Excellent medicine and Cordial,
 were the Strength by Chronic Diseases —
 It is also Excellent in some fevers, Fevers are
 Divided into two kinds, 1st those which are at-
 tended with Languor & Debility, and where
 the action of the heart and Arteries is too
 weak and Low —

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2nd The Inflammatory, when the Action of the Heart and Arteries is too Vigorous, Under the former we comprehend all Nervous, Malignant, and Putrid Fevers. Here wine is an Excellent Remedy, as it Resists Putrefaction excites the too languid motion of the Heart and Arteries, and Encreases the Strength of the Patient. Where Miliary eruptions appear wine properly administered, not so as to heat the body, is one of the best medicines we can employ. It is also very good to take of the Lethargy attending these Diseases. A Delirium and Redness of the eyes, are no uncommon Symptoms, in nervous disorders, these are Occasioned by a weakened Circulation, Wine therefore by encreasing the Circulation will be of service in these Cases, if it encreases the heat & Delirium, it is not to be Continued — Wine is also very usefull in the last Stage of an Inflammatory fever, in which the Patient is generally weak. In the beginning of Inflammatory fevers the use of wine is improper on account of

of its Increasing the action of the Heart
and Arteries, which is already too Vigorous
Wine is also employed with advantage in
the Small Pox, where it acts much in the
same manner as the Bark. With regard
to the quantity to be given, one bottle a day
will generally be sufficient, but such per-
sons as have been used to a large quantity
of it, in Common, must take more than
a person who uses it sparingly, or perhaps
not at all in Common Diet, It should
generally be given in a weak Negus, or
in a Diluted form, it supports the Vir
vita, & acts as an Antispasmodic & Antiseptic,
Burgundy, Claret, & Rhenish, are the
best Antiseptics, The heating wines as
Madeira, Port &c, are the best to preserve
against Contagious & Epidemic fevers,
of the usefulness of wines in Contagious
disorders, there was a remarkable In-
stance, during the plague at Marseilles,
when the Physicians of the place be-
ing all dead, it was necessary to order
a

A fresh supply from Paris, these thinking
 fear was the Cause of the Contagion, Determined
 to keep themselves always gay
 with wine, this they did, and by these means
 Preserved themselves; and as many others as
 would take the same method with themselves,
 Their Preservation however depended more
 upon the Antiseptic Qualities of the wine,
 than their High Spirits —

Malt Liquors, are more nutritious, more
 acescent, more Laxative, and flatulent
 than Wine, They are very proper for the
 Cure of, and Preservation from the Scurvy —
 Where there is a Debility of the Organs of
 Digestion; they are extremely hurtful,
 Causing, Flatulencies, Spasms, and the
 whole train of evils attending Indigestion,
 and an Acescent fermentation in the Stomach,
Animal Stimulants These are but few,
 as animals are made up of mild, bland,
 substances, and are themselves of a mild
 nature — Some of the secret fluids are
 however of an Acid Nature, these shall
 be

be mentioned under the head of Evacuants
the most Powerfull are the Cantherides
These are Commonly employed in External
Applications, from their Acrimony acting
as Stimulants, to raise blisters and inflame
the skin, which they do by exciting
an Inflammation. In the Part to which
they are applied, I shall here only treat
of there use and operation when taken
Internally, (The Ancients, Hippocrates & others)
supposed the Acrimony to be lodged in the
Head, wings, and feet, and accordingly de-
prived them of these, that they might
give them with more safety

But this is a mistaken notion, for the
acrimony is found to be lodged in one part
as much as another, Cantherides were
employed for Internal purposes, before they
were used Externally, Hippocrates employed
them in Hydrops Caps, and as a Purgary to
promote the Menstrual Discharge
They are found to have a Particular tendency
to the urinary passages, and even discharge
blood from those parts

D. Guinger

²⁴
D. Grainger, in *Edin. Med. Essays* recommends
a Combination of Cantharides and Alkaline
salts for the Dropsy, and in Irritated Glands,
Granvett employed them in ulcers of the
Kidneys, and Bladder, in the Gout, and in
Calculus Concretions in the Kidneys he
always combined Camphire with them, In
large doses they are very hurtfull, and will
even prove fatal, by exciting a Violent Inflame-
-mation of the Oesophagus, Stomach, and In-
-testines, They will also Cause a violent
Stranguary, Bloody urine, Constriction of
the Penis &c, they will Affect the Testis
Cause continual Erections, Swelling of
the Scrotum, and discharges of Blood
and so destroy the Patient

In moderate doses they do not affect the
Stomach, and Intestines, but Stimulate
the urinary passage only, This Seems
to be owing to their being kept, in a Dif-
-fused state before they Arrive, where from
their Connection to a particular part
of the Blood, they are in a manner
Concentrated

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Concentrated and thus can act more powerfully, This seems to be confirmed by their not always affecting the Kidneys when given in a dilute form, Gyps in substance has occasioned Stranguary, but more by chance than Design. They do not always prove Diuretic. In Nephritic Cases they must be hurtful, on account of the Inflammation they excite. They are said to be usefull sometimes in stopping Gleet, and the Fluor albus, which they do by exciting ^{any} Inflammation in the Parts, but their effects here are Doubtfull, as we cannot determine the degree of Inflammation, on account of their Diuretic qualities. They have been supposed a Diaphoretic, and hence have been recommended by S Mead for the Leprosy, but we must not expect any great affect from them in this Disease. They have also been supposed Expectant, and therefore

were

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Were employed by Burton for the (hin-
-cough, but he always combined bark,
and Camphire, with them, to prevent
there bad effects, which were of more
service than the Cantharides, They are
at best a Precarious, and in many Cases
Dangerous Remedy, and ought to be
employed with the greatest Care, and
indeed they should never be used, when
we can get any other Remedy, to An-
-swer our Purpose

Millepedes have been employed for various
Dysorders, - Dioscorides employed them as
Diuretics in the Dropsy, and in Obstruc-
-tions of the Viscera, Jandide &c
Boyle says the use of them will Sharp-
-en, and Clear the eye sight, in the first
Symptoms of a Cataract

They have been recommended in Sup-
-pression of Urine, and in Constriction, of
the Kidneys, owing to Calculous Concretions,
where they are supposed even to dissolve
the Stone (Lavinsimbergius) These insects
contain

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contain A stimulus, of the same undeter-
-mined nature, as Cantharides, to which
however, they are vastly inferior in pow-
-er, I have seen them exhibited in the
Chlorosis, and Scrophula for a sufficient
length of time, without observing any con-
-siderable, or certain effects from them.

They have been employed in long Nervous
fevers, but if they have any Effects they are
Imperceptible, If we produce any effects it
is owing to the wine in which the Insects
are taken. — They are given in Substance
from ʒpt. ʒj for a dose, or the Express'd Juice
of 50 or 60 Animals in a glass of wine.
Coccinella produces no great effects as a Me-
-dicine, it is said to be Diaphoretic, but
very large Doses are required to produce
this effect, there only use is to give an Agree-
-able Colour to our formula.

Vipers have been employed for the Cure
of various disorders, and our Rattle Snake
also for the same, they have been Em-
-ployed in Disorders of the Skin as the
Elephantiasis, Mead recommends them
in the Leprosy, The powder in wine
and

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and the Broth of Vipers, has been used in
the jaundice, and other Obstructions of the
Viscera; It however possesses no superior
Virtues to any other Stimulent, Hoffman,
says he found himself disappointed when-
ever he used it; The Volatile salt is
said to prevent the bad effects of the Bite,
if in quantity of ʒj Broth, of the pure
Vol. Alk. The fat is said to be usefull
in Disorders of the Eyes, Hans Boerhaave
and that it will cure the Bite of the Ani-
mal, if rubbed on the wound, Oil of
Almond or any other oil, will answer
just as well. The broth is recommended
as a high Restorative, and fine Nourish-
er, It affords an Alkalescent rich nutri-
ment, In A Relaxed Stomach
The Rattle Snake is possessed of the
same Virtues

Cold Bath is considered as belonging to the class of Stimulants - to stimulate and give strength to the whole body it acts a considerable tonic. The ~~idea of the~~ cold bath was first ^{in. regimen} made use of by Hippocrates - Many Physicians prefer the cold water to any other the way the water that is contained in the water jar is to rub in & stimulate it and washes of the Impurities. But where a Tonic is only required the Spring water is the best - The Cold Bath may be applied in two ways first by plunging into the Water and remaining in a short time or Secondly by what is called the Shower Bath where the Water is received in form of a Shower - The Skin has such a Connection with every other part of the Body that pleasure or pain produced upon it is extended over the whole system. In the application of the cold bath the skin becomes constricted and cold owing to the blood deserting the Vessels on the surface and being directed to the Internal parts. The remaining in the Bath too long is attended with great danger owing to the blood accumulating in the large blood vessels and endangering a rupture of them or inducing a Reaction so violent as to Parry of the Patient - This sometimes happens when the cold bath is applied to one that is very warm or sweating -

The Cold Bath acts the same on Animate as it does on inanimate Bodies by constringing the fibres the do not act in this manner on the Internal parts for they all retain their Natural warmth the have no action on the fluids but by the Reaction produced in consequence of the bloods being determined from the Surface to the heart — The Cold Bath acts chiefly on the Solid: Viva: — too ~~long~~ Lax or too Rigid habit of body is hurt, all especially in the blood vessels and Muscular System the Muscular System is kept tense by the Part around and by the Tension of the Blood Vessels Bleeding does not act from crivulsion but from the Relaxation produced. and by it means relieves Spasm at a distance from where the Blood was taken and thus 320 of blood taken at once in a Plurisy is better then 30 taken at different times — we are not to account for the Tension of Blood vessels or the momentum of the Blood but from the Influx of the Nervous fluid The Stomach is so connected with other parts of the Body that the well being of it depends upon the State of the Stomach and Intestines — A man that is custom- ed to take a dram every morning finds himself very much out of order if he happens to miss a morning but as soon as he swallow his Liquor he is restored to his former lively State and in the same manner a per-

person that happens to miss a Meal or
 does not get it at it Usual time he becomes
 feeble and Unfit for business of any kind.
 but as ^{soon as} he has got the Meal in his Stomach
 he is restored to his former State Owing to
~~the~~ ^{the} Emptiness of the Stomach
 extending a disagreeable sensation over the
 Whole Body — The Stomach is also effec-
 ted by Impressions made upon the Skin as
 a Blister applyed to the Skin Increases the
 tension of the Whole system owing to an
 increased efflux of the Nervous Power — As
 warm water takes of tension it is no more
 then Natural to suppose that Cold Water
 increases the Tension of a part. — The Cold
 Bath is of use in Laxity of all kind as in
 Lax haluts there is always an increase of
 Irritability and Sensibility this ~~the~~ is Most
 by the Case with females
 we seldom meet with an Increase of Irritabi-
 lity or Sensibility ^{in Rheumatism, &c.} which chiefly effect is
 Bellies of Muscles the Stomach and Intes-
 tines — The Cold bath acting on the Solid.
 Vix, producing an Influx of Nervous fluid
 into the different organs — In Hysteria
 or Epilepsy attended with Irritability &
 Mobility the Cold Bath is of the Utmost Use
 Particularly the Hysteria disease as the

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are chiefly diseases of warm climates but
in the Hypochondriac disease which is a
disease of the cold climates in this the cold
bath is not indicated. Infants is often
affected with Epileptic fits & when there
is accompanied with Laxity the cold bath
is very proper — Palsy is owing to a
diminished Nervous Power in a Particu-
lar part these Medicines that Will restore
the influx of the Nervous Power will answer
Extremely well the Nature of the
Cold Bath — Madness and Mania has
been cured by what is called the Drop Bath
where the Water is applied Drop by Drop
Intermittent is brought on by any thing
that constricts the Vessels on the Surface
and Determines the Fluids to the Head the
causes are analogous to the Effects of the
Cold Bath — There has been instances of the
Worst of Quartans being Cured by the applica-
tion of the Cold Bath — It is generally re-
commended by Galen in the Cure of Ardent Fe-
vers Doct^r De Haen has described an Epi-
demic fever that carried off many which
was relieved by the Application of this
Medicine — I do not see a more effectual
Remedy in the Violent fever than the Cold
Bath applied during the Accession — A
chronic

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choone Head it may be occurr'd by va-
rious causes if it is lodg'd inside of the Cranium
it is not to be removed by medicine. But if
what is call'd the ^{pharyngeal} ~~pharyngeal~~ head it ^{and the throat} ~~the~~ (of) hath
an excellent remedy and has very promising
effects — This Medicine has been famous in
the Cure of Arthritic Complaint Bartholinus
gives a account of a Man affected with the
Gout plunging his hands and feet into snow
and relieved by it — But this I think
is a dangerous Method as nothing ought
to be employ'd that would tend to drive
the Gout from the Extremities — Cold Bath
is an excellent Medicine in Calculous Com-
plaints. — Calculous concretions is mostly
attended with a Laxity of the Kidneys which
I think constitutes the Chief part of the Pre-
disposing Cause and Restraining the Vessels
on the surface it will be extended to the
Kidneys and enable them to throw off the
calculous matter and prevent an Accu-
mulation — An inability to retain ^{urine} ~~urine~~
Urine to a Balny of the Neck of the Bladder
the Cold Bath is of Use in this Case as is
it is owing to a palsy of the Muscular
Coat of the Bladder — The Cold bath is
of some Service in Nocturnal Pollution
and in all Seminal Weaknesses as in
this case there is mostly a Laxity of the V.
Venuela

U. bicula *seminalis*. It is the wine of the utmost use in Gleet & violent Chronic Colic. The recovery of health has been effected by this remedy — In costiveness it has been used with success it is also used in strengthening the Whole Body, which has been debilitated by wearing too Warm Clothing — — —

Oct. 28th

(Cold Bath is likewise of use to Infants to prevent and cure most of the Diseases incident to that age - It was said by someth the disease of infants was chiefly owing to an accumulation of bile in the ^{liver} alimentary canal, but this is not the cause of the disease but only the effect. The cause of the most of the diseases of Infants is owing to a debility of the Primæ Viæ which favours an accumulation of Bile and what will restore tone to them is the method to be employed This effectually done by the Cold Bath — Rickets is a disease which Children is sometimes affected the Cause of it is a debility of the Moving fibre whereby Cartilage or Herectium is incapable of depositing Matter proper to form bone The Cold Bath both removes the Cause and Obviates the effects of this disease — — — The Cold Bath is attended with bad consequences where rigidity of the system is present

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Cold Bath has been recommended for the Cure of the Pulmonary consumption but this is at least a doubtful if not a dangerous Method - the Consumption is often brought on by an Hemoptoe the Cold Bath by driving the Blood from the Extremes Parts towards the Viscera and endangers a Rupture of some of the Vessels the Consumption is sometimes attended with Symptoms nearly nearly ^{like} the Hypochondriac Disease, which has been taken for the Plethoric and has been cured by the Cold Bath ^{which} is I suppose the reason that the Cold Bath has been recommended in the Cure of Consumption of the Lungs - What I have said above on Consumption may be applied to Hemoptoe The Cold Bath will likewise be hurtful in all Cases of Inflammation - Inflammation most ly attack those of the Robust Kind - We should be Carefull also how we recommend the Use of the Cold Bath to Plethoric patients for by determining the fluids to the Internal parts there is a danger of Bursting the Vessels - -

Sedatives are such substances as are opposite to Stimulants the diminish Motion in the system and the force of the moving Power - - - -

Opium is a medicine of peculiar Efficacy - Not only have the Antients disputed whether it was cold or hot but We are at this moment disputing whether it acts chiefly as a Sedative or Stimulant.

Callen

Galen²¹ says it acts as a Cooling Medicine
 while Plato says it is heating others says
 it is both Stimulating & Sedative — Some
 have imagined that Opium acts by rarefying
 the Blood while others adopt a Contrary
 opinion — Trallus does not deny that Opi-
 um does sometimes affect the Nerves but most-
 ly rarefies the Blood ⁱⁿ it is effected by a Vo-
 latile Principle contained in the Opium
 But if we were to recollect what a small
 quantity of Opium is taken at a dose and
 what a small Quantity that dose that has
 of the active Quality we would soon see the
 fault of this kind of reasoning its action
 depends upon its being fixed to the inner
 coat of the Stomach and producing some
 change in the Nervous System That this
 is the case is certain because patients
 have Vomited up the Pill the day after
 he had taken it. the Pill having an-
 swered the purpose for which it was ta-
 ken in this case it could not have ac-
 ted on the Blood — If one Grain of Opium
 would Rarefy the Blood to so great a degree
 as it has been supposed to have done to
 what an enormous Bulk must the Blood
 be increased to by taking two or three
 drachms — Haller supposes that it acts
 by rendering the Blood more Thick —
 Some

Some say that the Blood of the Turks that fell in Battle was ~~much~~ thinner than other Peoples but this was not the Case. Opium may by debilitating the Solids render them incapable of Acting on the fluids in a proper manner — Monro While he proves by Experiments that Opium acts upon the Brain but the Mode of operation is uncertain. Monro's Experiments prove that it may be taken up by the Lymphatics but does not act ~~on~~ By Rarefying the Blood but taking of the Sensibility of the Nerves. Opium not only effects the Nervous System in general but effect only the Nerves of the Part to which it is applied without taking any effect upon the Brain — — —

Another Question is whether Opium Excites or Action of the Heart and Arteries or the contrary diminished it Tralles says it accelerates the Pulse Haller also says it quickens the Circulation. But if the Action of the Heart & Arteries is owing to their Sensibility and Irritability the Opium by taking of the Sensibility & Irritability must diminish the Action ^{of the heart} and the Peristaltic motion

* Monro opened a frog took out the Heart and injected a solution of it into the Intestines and found that it had the same effect upon that Animal as it would if the heart was still in — — —

motion of the Intestines is Moderated in the
 same manner. It appears from Doct. White
 experiments that injecting Opium in the
 Intestines of an Animal It died sooner than
 if the Brain and Spinal Marrow was re-
 moved away — It is beyond doubt that the
 action of Opium is entirely on the Nervous
 System — Opium indeed may be given
 in the Colic when it is owing to debility
 not by acting as a Stimulant but by ta-
 king of the Pain and removing Spasmodic
 constrictions of the Intestine it will restore
 the Heat to an Animal that has been de-
 murrished by Vomiting by stopping the Co-
 mitive and alleviating the Pain that attend
 incessant Vomiting — Opium in some cases
 will prove Stimulant but it would be im-
 proper to think that this is always the case
 We may as well say it is always a cathar-
 tic for by the Use of it a patient may get a
 Stool when many other things fail it acts
 by leaving the bowels more Irritable and more
 susceptible of Stimulus & by taking of the
 constriction ~~that~~ ^{the} may happen to be the cause
 of Continence So the Irritability or Quantity
 of Blood in the Laxer blood Vessels the bad
 effects of Exhibiting Opium in the In-
 flammation is to be ascribed to — It re-
 laxes and debilitates the Solids & Mr. Low-
 eden says it may be given to demurrish

Merham advises it in a Plurisy or Peripneumony it is certain that Opium cannot increase the heat in this case for it would be fatal to the Patient it has been observed that by applying a thermometre to the Body of a Patient the Mercury has fell --

Effects of Opium upon the Body most persons become chearfull after the dose of Opium The Pulse Slower and fuller the Body looses all secretions but Perspiration is diminished the Body cools Respiration less frequent at a later hour refreshes the Body and induces sleep --

Its general effects may be easily accounted for by diminishing the Sensibility and Irritability

Its Particular Operation the mind becomes chearfull by taking of disagreeable impressions too full doses of opium makes a person more dull and heavy owing to the sedative effects being too great -- Laud. Liquid in some cases increases Vomiting a fresh full of Opium would be cast up when Niacobium would remain on the Stomach owing to the different Constitution of the different Persons --

We should not confine ourselves to a particular quantity of Opium tho a grain is usually enough

ought to increase our dose according to the
urgency of the symptoms

How the Pulse becomes slower & fuller) what
ever diminishes the Irritability and sensi-
bility of the heart will of consequence di-
minish the Number of Pulsations the
fullness of the Pulse is owing to the relax-
ation and Great quantity of Blood in $\frac{1}{2}$
Large Vessels - - -

It Diminishes Heat) the Heat of all Ani-
mal Bodies depends upon the Circulation
and if this Circulation is diminished the
Heat of the Body must of consequence be less

It diminishes all secretions but Perspirati-
on When the Vessels of the Secretory organs
is relaxed

Opium renders the Body Costive by taking
of Sensibility & Irritability of the Intestines
by which means ⁴are not so much affected
by the stimulus of the faeces the Mucous
and the fluid parts absorbed the Remain-
der becoming hard

Lect. 29.th

Opium renders respirations less frequent by taking of Irritation. Scallus or o that Respiration is much quickened by taking Opium and this would be the case if the Circulation was quickened which it certainly is not Opium acting entirely as a sedative. The Blood Vessels in all parts of the Body is very much attended owing to the passage of the blood thro the Lungs being impeded the Blood is no more determined to the head than any ^{extremes} other parts of the Body and this is a consequence of a diminished respiration. Numbness of the Skin is owing to the large quantity of red blood poured into the Extremes Vessels — Opium Numbness of skin involves Opium Numbness ^{and induces sleep} a fatigued & latent by taking of the Sensibility and Irritability while the mind is busy with external objects Sleep is a stranger — Sleep is not a constant effects but sometimes Sleep or delirium Watchfulness but after the Narcotic effects of Opium is over the Sensibility & Irritability returns the body feels heavy dull and torpid Opium given in large quantities enervates the whole system and Relaxes the Body — —

We have now shown that the operations of Opium is chiefly on the Nervous system and not by changing the Blood as it was thought by some of Opium

Opium is frequently used as a palliative or Remo-
ver of painfull sensations — Pain may be
considered as of three kinds Inflamm: Distension
Spasm and Irritation —

Pain from inflammatory distension
Opium is of doubtful effect by favouring
an Accumulation of Blood in the large
Blood Vessels — In Inflammatory diseases that
Depend for their solution on a particular
excretion as in the Plurisy we are to
take care how we recommend Opium for by
checking this it may be attended with
consequences — it therefore when administered
in this case ought to be combined with Squir.
In the Acute Rheumatism it is doubtful in
its operation The Chronic Rheumatism
it is of use in the Tooth Ach it does not
only diminish sensibility but in time de-
strays the Nerve — It may be given to
mitigate pain in the Gout when Sym-
toms of Inflammation is not Present
In suppuration Opium is of Use in Re-
lieving Pain. it may likewise be given
in the small pox to compare the Patient
In pain Arising from Spasm as in the Fla-
tulent Colic the Bowels to be evacuated
but if the Pulse is full the Urine high
coloured that in the Bowels there is a

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a danger of an Inflammation of the Intestines
in this case instead of Opium it requires the
Antiphlogistic Regimen - in the Colera Opium
is a sovereign Remedy the Patient is drunk
first large quantities of Chicken Water in
order to wash out the Stomach the Opium
to be taken afterwards Opium is of Use in
the Bellicus Colic by diminishing the Se-
cretion of Bile. The Spasmodic is owing
to Spasm which totally stops the
Course of an evacuation must be had and
this cannot be done without first relaxing
the Spasm which is to be done with a
dose of Opium in this case I frequently
combine Opium with a Cornut - In the
Dry Belly Ach or Colicca Tictenum the
Opium may be employed for by taking
off Spasm entirely removes it Trico-
Opium may be used in Spasmodic Aff-
ection of the Stomach but it is not to be
continued for any length of time In Spasm-
odic affections of the Uterus Opium is found
usefull - Opium alleviates the Pains at-
tending Women after Labour when taken
in the beginning of them but after the Pain
has continued sometimes there is reason to
suspect an Inflammation in which Case Opium
would be hurtfull Besides Opium in
Case Cold application to the Abdomen would
be attended with good Consequences

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Those pains which are called false are effectually removed by Opium which does not prevent the real Labour pain from coming on. To prevent Abortion Opium may be given after a few ounces of Blood has been taken from the Patient - Opium is of Use in a Paroxysm of a Nephritis after blood has been drawn and a Glyster or two being administered - fomentations apply'd to the Part is most effectual this should be put into a warm bath several times during the Paroxysm - It is of use in a Stone irritates the Neck of a Bladder and prevents an accumulation of Urine the Patient having a constant desire to make Water. This may be remedied by a dose of Opium by taking of the Irritability of the Bladder and giving the Urine a Time to collect which may stand a Chance (if the Stone is small) to wash it away - In the Tetanus Opisthotosus Lockjaw is occasioned by irritation produced by the Puncturing of Lesion of a Nerve when it can be done the Joint ought to come off but if this cannot be done the Medicine found most effectual is Opium the dose in this can ought to be large there has been instances of several Drachms being given before it produced any effect - It has been recommended to Asthmatic People - Asthma are of 2 kinds 1 the Spasmodic 2 Humoral the former is to be treated by antispasmodics the

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the latter Stimulating Medicines the former is
Periodical the latter comes on Irregularly and
continues a length of time - Opium is never
given in the Astma only as a Paliative and
I think would be better Administered with an
emetic - Opium has been given to relieve
head Ache - but if it proceeds from a disor-
dered state of the Stomach Emetics & Stomachic.
are the proper Medicines - If from debility
Cortex and other Tonics should be given
but when it is Nervous Opium is the Pro-
per Medicine for making use of an Emetic
It may be proper to combine Opium with
Ipecacuanha in this case - -

Pain arising from Irritation opium is of
use only to mitigate Pain - Caners we
may order Opium to give Relief It may
likewise be used while while other means
are made use of to destroy the Cancer

Opium may be given to mitigate Noctur-
nal Pains attending bedes Suppuration
and likewise to alleviate the Cough in Pulm.
Consumptions

It has been employed for the Cure of Inter-
mitting fevers taken about half an hour
before the Set it acts as an antispasmodic
It may likewise be given after a Vomiti

Opium may be given in a Nervous Fever to compose the Patient

In diarrhoeas and dysentery opium may be proper but not before the Bowels are properly evacuated it may be given ^{combined} with small doses of an Emetic in the Evening and the Neutral Salts in Morning mild Purgatives is to be preferred to is Acid as the Acid Stimulate the Intestines while the Mild will act as a Sedative and in some lubricate the Intestines

Opium in catarrhus Diffusions is at best ambiguous except combined with Squels &c. to obviate its bad effects — Cough in the Measels is owing to the Eruption in the Lungs irritating the Parts the Patient in this case ought to be bled and the Laxative Drinks is Cough to be mitigated by a decoction of Marsh Mal- lows. Syr. Pop: &c. but when this cannot be done recourse must be had to Opium to relieve the Cough and take off Irritation from the Lungs The Patient will then expectorate freely —

Opium in hemorrhages acts as an Antispasmodic & diminishing the Action of the heart and Arteries and by that means checks and Stops hemorrhage in hemorrh: from the Uterus Glyster of Warm water and Laud Liquid should be injected when the hemorrhage is owing to an irritability - But when an increased Action of the heart and arteries is the Cause Bleeding is the proper remedy - but when owing to relaxation opium is hurtfull ^{but} opium may be used in these Cases to give temporary relief untill proper medicines can be given but as soon as the Effects of the Opium is over it returns with as much Violence as before ————— Opium in the Venereal disease is supposed to be infallible in any Case — the Physicians of the Army have employed it with the Greatest Success in large quantities as 10 or 12 grains in a day the Ulcers being washed by a Weak Solution of the Opium — In my own practice I have Used Opium with the greatest Success — I have entirely cured the Gonorrhoea by giving one grain of Opium Night and Morning continued with R^{ij} Pulv. Gum: Arab: in the Cure of the True Syphilis I mostly combine it with Corrosive Sublimat^e or Calomel —

^{1st} *Lect.^m 30.* January 2.nd 1786

Cicuta] there is several Plants that has been called *Cicuta* the *Cicuta* of *Stork* is of *Conium Maculatum* there is another called by *Linnaeus* (*Cicuta Aquatica*) It is the *Conium* we shall take notice of here It has been extolled as a good Remedy to discuss *Scrophulous Tumors* & has by some been found of Use internally It has also been said to be of Use *Cancerous Affections* - *Cancers* are of 3 kinds 1 *Genuinis* 2 *Fungous* 3. *Scrophulous* — 1 *Genuinus* it is the most common it first appears of the Size of a Pear its hard to the Touch it will continue Long in this State without causing Pain it sometime feels like an Almond sometimes like a hazelnut it appears at other times to the feel like a Tendon or the End of a Cord at the beginning it appears perfectly smooth but after it has continued sometime it becomes Rough the mostly remain single & and solitary in the breast - while this ^{kind} continues small it may be easily moved about except it adheres to the Pectoral Muscle or other parts that lie under - or if it lies close to the skin it mostly adheres to it and forms Wrinkles on it - When this Cancer Breaks there is a discharge of Putrid Bloody Saries the Edges hard and *Squamous* afford good Cure in this kind of Cancer the Mineral Waters act in the same manner as mercury & *Squamous*

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Luxurians when the Tumor begins to Shrink
there is no hope of Dissolving it while it
continues Small it is frequently without
Pain - there is sometimes a small degree of
Pain during Menstruation but this does
not continue Long but soon goes off - but
Those which resemble Tendon or Pack Thread
are mostly Painfull in this Species of the
Disease the Hemlock is not attended with
any good effect it is often Unsuccessfull in the
Scrophulous Cancer & in the Scrophula itself
But in the Genuine Cancer it is hurtfull
It kills the Pain ~~it kills the Pain~~ for a short time but it soon return with
redoubled Violence - The Hemlock acts in this
case by irritating the ~~scrophulous~~ ^{cancerous} and of
consequence aggravates A Cancer is seldom
or ever Cured when Under the Arm pit ow-
ing to the Number & Large blood Vessels in
the Part - Cancers in the Breast are fre-
quently Brought on by affections of the
Mind in Women - there is a Connection be-
tween the Mind & breasts

in 99 cases out of 100 this Species of Cancer is
Local and may be taken out by the knife ^{and}

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and Ichthyus may remain a long time and
become cancerous at last - The only ~~remedy~~ remedy
is excoriation Guy's Powder or in some cases Ar-
senic the Cancer should be entirely removed for
if the smallest part of the Cancer is left it
will bring it on a fresh - -- this disease ne-
ver affect the Whole system - --

(Cancer Fungus). this Species of Cancer
mostly attend Fat Lusty Women with
Large breasts. It begins like the Genuine
but is not so hard, but more spongy ⁱⁿ
it breaks out it is very different its grow-
th is much quicker the genuine Cancer
will remain a great time very small
but this Species of Cancer in a short time
grows to the size of a mans head ^{when it Breaks} it mo-
stly breaks in several Places & Pours
out a Bloody Serum and from those
apertures the Fungus is pushed out ^{it}
has the appearance of a Sheeps Liver and in
shape sometimes like a Mulberry and at
other times like a Collyflower they are
sometimes hard like Cartilages the Edges
of wound is irregular and puffed up
the running amazingly profuse they
are strangled at their base the Sub-
axillary Glands are never affected in Fun-
gus Cancer is not confined to the ^{Breast} head but
- affects

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affects the Back arms Legs &c. the Genues
affects the Crown of the head - Lips &c. - A per-
son was affected with a Cancer of the Breast
in consequence of letting the Milk stagnate
the only thing that Promised Relief was yo-
ng Puppies to suck the breast which occa-
sioned great pain at first but it became
less violent every time the Puppies were
applied till at length she was perfectly
cured the Puppies mostly died after the Op-
eration till after the Cancer began to grow
more easy she then remained Alive. Toads
has been apply'd to cancers of the Breast ^{the}
suck'd by sucking - The Toad should be ap-
plied to the Breast but should first be put
in a bag made of Lawn - -

The Scrophulous Cancers undoubtedly owes
their origin to an Internal Cause and Most-
ly to the Venereal Disease remaining in the
Blood (Scrophulous Swelling) in the Ele-
phantiasis the Glands are indurated which
is probably owing to Scrophulous habit
of Body - - -

By the term Scrophulous I mean large & small Tumors in the Breast under the Arm. Pit on the Neck under the Throat &c & are sometimes Red sometimes inclining to Blue at other times like the Elephantiasis and sometimes like a Ringworm. They are occasioned by (contamination with impure People sometimes the feel like a tindow or like the end of a Pack thread under the Skin there are evidently an indurated Lymphatic Vain - It is a disease that is handed down by a person to all their Posterity & it is no wonder that they are so obstinate to remove As difficult as they are to Cure they are as difficult to distinguish - The Scrophulous requires & yields to mercurial Insuperations but the Genuine & fungous Cancer does not give way but is aggravated by them And in the Genuine external applications will sometimes remove the disease but in the Scrophulous never - Scrophulous takes place mostly in Unhealthy Patients but of course in people apparently in health The Lump in those of the Scrophulous is not quite so hard as in the Genuine nor is there any Pain felt in the Part untill it breaks In Scrophulous breast when they become hard they adhere to the Skin and Muscles these Lumps are many in number placed in the whole


Maps resembles a small Crab they spread
 themselves up and down the Breast & over
 towards the Muscula Pectoralis Major Anticus
 the Puls appear to adhere fast to the breast
 They are not brought on by affections of the
 Mind as the Genuerius is sometimes but is
 supposed to arise from contusion. The Pa-
 tient face is of a sallow Lead Colour puffed
 up eye lids and a scurvy appearance of the
 Skin Tumors in the Groins armpits &c
 the Inflammation is allways greater when
 they are Extirpated then it was before they
 appear in different parts of the Body at
 the same time in some places the Sore re-
 sembles Bacon and sometimes Fungous
 & sometimes it is covered with a dry Scurf
 The small tumors are frequently discurfed
 by Mercurial Protoperations & Poultices they
 have been cured by a long Course of Mercury
 taken Internally & applyed Externally -
 It is in this Species of Cancer & in this only
 that hemlock is of any Use In the Cancer Genu-
 erius & Fungous it is not only Useless but
 certainly hurtfull Cancer in the breast all-
 ways originates from a Schirhus that is at
 first Movable - So that whatever Swelling
 occurs that do not Originate from a Schir-
 hus let the symptoms be ever Violent and Bad
 they are not to be called Cancero Baron Blomer

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are most liable to be affected by this Species of Cancer. People that wear tight Stays a make too free Use of Sp. Liquors are also liable to be affected with this disease Indurations from stagnant Milk in the Breast which become as hard as Cartilage may be dissolved sometimes but Mostly suppurate in this Case it is proper to apply Ext. Saturn. & Emol. Poult. - Women Lovers should follow such a Course that their Nerves sh. not be weakened by it and should suckle their own Children this will not prevent the disease but prevent its raging immediately upon the Breast I have told you before that if it is not all excoriated will return with more Pain than before - Some People assert they are infectious others deny it say they are not but from several Cases that I have seen and Read it appears to me that open Cancers are at least infectious the Sores if succed Cancerous sores expired Immediately after the Operation - From the difference in the Construction of Breast we may easily know why men are seldom affected with Cancers in the Breast - Women are seldom affected with Cancers of Lips &c - [The Characteristic Difference between a Venereal Ulcer & Cancer Venereal

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al Ulcers and Tumors are of different ap-
pearances and may be reduced to three
kind 1 Ulcerated 2 Gangrenated
3 Hard from the Perostium The first
may be distinguished by the whitish stuff
like Bacon in the Venereal disease this
begin to swell and inflame very soon
Second Gangrenated puts on a most
frightfull appearance the destroy the
parts in every direction Corroding
Bottom & Sides. But they feel more
soft the Edges not so Irregular as in
Cancer The Mortification which accom-
pany Venereal Ulcers of this species dis-
tinguishes them from Cancers 3 Hard
ones that proceed from the Perostium
A case that I shall relate will give you
a notion of the Symptoms that attend
species of Ven. Ulcer A Man Aged 40 had
shooting Pain in one of his breasts attend-
ed with a soreness the Breast was indura-
ted & there was an Elevation of the ribs the
other breast was hard and movable He
took the Corros. Sublimat. internally & apply-
ed a strong watery Solution Externally
Pain left him and in a few days he was
entirely relieved all but a small Tumor
that remained which was made to Sup-
purate and healed very soon In Scrophu-
lous Cancers internal Medicines are Request
Cancers

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in Scrophulous Cancers Cancers in $\frac{1}{2}$ Tongue
full hard they are Very Red and Some-
times Blue Venereal Ulcers feel soft they
are of a Yellow Colour inclining to Red &
sometimes Green & they soon Gangrenate
Cancers on the Lips are mostly Slow in their
Progress the lip becomes dry & Chapped they
are covered with white Plaques the Papillae
Rise high and have sometime. Reflected
Edges Ven. Ulcers in the Mouth make as
much progress in a few Weeks as Can-
cers do in as many Months Years - If
from what I have said you will not
be able to distinguish the Cancer from
the Venereal Ulcer the following Method
is infalible - Cover the Ulcer with Ca-
somet & a sticking Plaster over it If it is
Venereal the sore will mend but if it is
a Cancer it will be aggravated by the Ap-
plication - From what I have said
you will understand that the Genuine
& Fungous Cancer is entirely Local and
is to be cured by Excision by the knife
or by Gay's Powder And that the Scrophu-
lous Cancer is An affection of the Whole Lym-
phatic System & it may be cured by the
Use of Extract of Hemlock & is the only spe-
cies of Cancer that yields to the Hemlock -



In the internal Use of Arsenic for the cure of Cancer 49th of Pure white and shining Arsenic is to be dissolved in 1/2 of distilled Water and a table Spoonfull to be taken every day for the first Week 2 Table Spoonfulls may be given the Second week 3 on the third Week and after he has taken it for a short time and finds no inconveniencs from it may Increase the Quantity of Arsenic to 1/2 dissolved in a Quart of distilled Water Doct^r Justamond has apply'd in a Variety of Cases Plunkets Remedy has the same effects as Gyps Powder Doct^r Justamond Accuses it of bringing on Spasmodic affections of the Muscles and particularly those of the Eyes It is most certain that Gyps Powder is not effectual in all Cases Doct^r Berman never considered this Remedy as infallible & when ever the Knife can be Used it should be preferred to the Caustic - but when the Cancer is so situated that it would be inconvenient & even dangerous the Caustic should be preferred the Basis of which is Arsenic every unsuccessfull attempt to extirpate the Cancer, aggravates it and the Slightest and easiest applications made

made to incurable Cancers the Better Arsenic is the Basis of Doct. Martens Powder and is the Active Remedy - The Milder way of Applying Arsenic is in Solution it may frequently be applied in unconditioned Ulcers with Success - when we apply the Arsenic it should not be upon Large Surfaces at a time. ~~With~~ ~~would~~ - Would not Opium alleviate the Pain from the the Use of Arsenic The Celebrated Surgeon Sydes gives us a Case where a Person was destroy'd of her Reason by the Use of Arsenic - Belladonna has been apply'd with good effects in some cases of the Scrophulous Cancer but are hurtfull in the Genuine and Inguano Cancer. - - -

Rhyschyamus this confuses the head as much as Spirituous Liquors it has been apply in Cataracts & Dysenterry it has the same effects as Opium but does not check the discharge in dysenterry as much as opi - - -

Nicotiana it possesses a singular Narcotic Stimulating and Purging Quality it is an Emet & Disposes to Sleep but by long use it becomes habitual and has none of those effects.

The Principle way of using tobacco is in the form of Glysters in this way it is of Use in Colic pains Strangulated Hernias Symptomatic &c the Glyster ought to be continued till a sickness is felt at Stomach we have many Cases where Tobacco has been of use in the discharging of hard tumors -

Laural appears to possess a Poisonous Quality this has been proved by experiments made upon Beasts - As the Hemlock will not injure Cows but is a Poison to Man But Laural by several Facts is proved to be a Poison to the Human Constitution -

Tea & Coffee - Tea is ^{more} highly sedative & Narcotic when fresh than when kept some time especially to weak Stomachs some suppose the Bad effects of Tea is owing to the large Quantity of warm Water taken in with it but they are greatly mistaken for the Weakening the tone of the Stomach the Spasmodic affections attending the Use of it is owing entirely to the Tea - both the Bohea and Green Tea are products of the same plant - The Virtues of Coffee may be attributed to the Empurumatic Oil formed by Roasting it - It has been used in ~~many~~ ^{more} modern diseases

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but is hurtfull in dyspepsia and
Flatulencies - I attribute many Ner-
vous Diseases to the Use of Tea and
Coffee & It is highly probable that
tea and coffee have had their share in
rendering the Nervous diseases more
frequent now then they were some
years ago when Tea and Coffee was
not used so much as it is at present.

Saffron the Real Medical Virtues of
Medicine has not been given It is by some
said to be a Medicine of superior efficacy &
Virtue while others suppose it is of little
Consequence in the Materia Medica -
Doct^r Boerhaave has supposed it to be an
excellent Medicine to strengthen the Nerves
Its Action is like Opⁱ Saffron apply'd to
Stomach Relieves Vomiting -

The Best class of Medicines are
Antispasmodics are those Medicines
that Relieve Spasm - Spasm is of 2
kinds the 1st is strictly speaking what
is called Spasm the 2^d Convulsion -
Hysteria it attacks both the Body &
Mind there is ^{an} disorder that this will
not immitate - This disorder is pe-
culiar to Women but Men is sometimes
affected with it -

The Symptoms that occurs in Hysteria never preserves any certain Rule or Type but are different in different persons and sometimes even in the same person -

The Patient is first affected with Tremors in the Limbs Loss of sight a Sense of Cold and Chills the Countenance Pale and Flushed

the Urine is pale and lymphed and in small Quantities - and a Sense as if a Ball was moving from the Abdomen towards the diaphragma by several convulsions as if it followed the Course of the Intestines - The Abdomen of the Pectus is so constricted that a Glyster pipe could have no admission Difficulty of Breathing Palpitation Strong Pulse a Singing noise in the Ears and a delirium comes on before the Patient falls into deep Sleep - but before Sleep the Glans Hysterica rises up to the Upper End of the Oesophagus and produces a Sense of Suffocation the Voice is Lost - the Pulse grows slower the Sight grows Dim and at last she falls into a Profound Sleep and recovers with deep Sighs the Eyes open the Pulse becomes fuller and she returns to her senses

senses After the Paroxysm is over they
 mostly complain of a pain in y^e head
 The Hysterics in mostly attended with
 convulsions the Body is distorted, with
 a falling Speech the Senses mostly re-
 mains in some degree and they remem-
 ber what passed during the Paroxysm.
 There are mostly preceded by a Sense of
 Cold about the Os Fronto and in this
 way the Fits continue recurring at in-
 tervals till death or till they are re-
 moved by Proper Medicines - and the
 feet feel Cold likewise There is a fal-
 tering in the Speech and they general-
 ly talk of things that is not in being
 they beat their Breast - Involuntary
 Laughing & Crying Some lay in a Com-
 motion State the Pulse appears some-
 times to be entirely Lost and in some
 cases they are in such a Condition as to
 appear like death - and it is not seldom
 there is a severe Sense & Dull pain of
 the Head sometimes it attacks one Side
 of the Head only sometimes the Other
 together with a fullness of the Head
 with a strong Pulsation of the Arter-
 ies Violent Pain in different Parts of
 the

the Intestines Sometimes they are affected with Vomiting other times with Colic some a desire to make water in some it returns Periodically Others have no more then Palpitations and faintings in the time the Fit sought to return when a patient is subject to Hysteria and is attacked with of this disease they mostly feel some of the Symptoms of Hysteria - The more violent the Paroxysm the more short is duration — during the interval some enjoy perfect health some with head Ach. &c. &c. Most Authors say Hysteria and the Hypochondriac Disease are the same but to me there appears to be a great difference - The description of Persons affected with these diseases are of different Temperaments and of Different Sex Hypochondriac Disease always attacks the melancholly Anxious & those fond of Solitude & they that are mostly troubled with Dreams Hysteria those of a contrary habit it seldom proves fatal persons are sometimes seized with Apoplexy by which they are carried off.

this

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this disease (the hysteria) is very Ob-
stinate it mostly affects the Patient
till the Day of her death -

Cure Indication is 1.st to remove or guard
against Occasional Cases 2.nd to relieve &
Mitigate the Symptoms 3.rd to prevent a
Return Ind: 2.nd when the symptoms are ^{any slight} no
occasion for Remedies But if they are
Severe the Spasm Great & the Patient
Plethoric Bleeding may be Used this is
indicated when the Respiration is dif-
ficult and Signs of an Approaching Coma
tho we ought always to Bleed with
Caution as it is only a Palliative &
~~only~~ tends to weaken the Patient - the
Remedies applyed ought always to be
exhibited at the Beginning of a Fit -

Lect. 3rd

In the 2.nd indication the Class of Anti-
spasmodics is Necessary & Vol: Salts &
Spirits Empurumatic Oils & Ether -
These are Chiefly Used before or during
the Paroxysm - as there is sometimes a
Sensation Cold arising from a Particu-
lar part towards the Head which when

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it arrives at the Patient is allways ^{Surged} with a fit this may be prevented by tying a Ligature above the Cold Part. —

A Radical Cure of the Hysteria Depends upon Tonics and Astringents it is in cases of Mobility & Delirium that Tonics is indicated the restore and increasing tone of the Whole System and remove Delirium we should administer them with Caution in sanguine Habits & where there are Visceral Obstructions it is best to give them in small and repeated doses Chalybeate Waters is a Useful Medicine Aerb & Astringent Wines is of the Utmost Use in Hysteria Cold Bathing is one of the Most effectual Remedies by Issues and Scatons we may Relieve the Disease many Violent Affections of the Mind has Cured the Hysteria - affections of the Mind will not only remove but produce Nervous diseases Notwithstanding all we have said it sometimes happens that all Medicines Proves ineffectual the Cure in this case ought to Depend upon the Cold Bath & Proper Regimen —
Apassetides this Gum has been in use

a Long time it is a good Antispasmodic Stimulus & Diaphoretic & Dueretic it Quies its Virtues both to Water and Spirit. A Weak Stomach will not retain it in a Crude State but will soon be Ejected by Vomit: but in these Cases it may be Used in Solution 3℥ of the Gum Dissolv'd in 3℔ or 3viij of Water it is of Great Service in flatulent & Spasmodic Colics administered in Glysters It has likewise been Recommended in Fever Particularly of the Nervous but there is antispasmodic more effectual than Apapalidum - It has likewise been recommended in Catarrh. Senilis but its good Effects here is owing to its diaphoretic Quality

it has likewise been recommended in destroying worms in the Bowels

it has been esteemed an emmenagogue as it stimulates the Pictum from which it is communicated to the Uterus & in
this

In this manner it acts as an Emmenagogue

Gum: Ammon is a weaker Anti-spasmodic than Asafoetida but is a Good Promoter of Expectoration -

'Volatile Alkali' these are the Salt of Horns Horn and of Sal Ammoniac they differ from each other very little the Sal. Corrosivⁿ contains more of the Empurumatic Oil yⁿ that from Sal. Ammoniac they are both Anti-spasmodic joined with a Stimulus They are indicated in the last Stage of Nervous Fever If the Patient has a diarrhoea I most-ly combine it with Opium but if he is fortive I combine it with Tart Emetic It generally renders the Pulse Slower & fuller It is known to occasion a heat and burning in the Stomach but this is seldom the Case - Its use is not confined to the Nervous fever but it is indicated in the last Stage of an Inflammatory Fever Particularly the Pleury when the expectoration is diminished In flatulent and Spasmodic affections of the Intestines if there is Pain Opium may be combined with it & likewise when the Stomach has been affected - Volatile Alkali has been

been Used with benefit in the Wane
 during Gout when it has seized upon the
 Stomach in this Case Sinapisms ought
 to be applyed to the Soles of the feet &
 Old Brandy Used internally -
 Castor is applyed ⁱⁿ the same inten-
 tion as Asafetida I have not often ap-
 plyed Castor when I have recommended it
 it is when the Patient cannot take Af-
 safetida and then I combine it wth Opium
 Musk this being a very expensive Medicine
 I have not given it a fair Trial but it is
 evidently an Antispasmodic it enters into
 the Composition of the Chinese Hydrophobia
 Powder which is a combination of Musk
 and Cinnabar - - -

Other is an antispasmodic it is of Con-
 siderable Use in Spasmodic and Arthritic
 complaints of the Stomach it has also been
 applyed to the head for the Cure of the head
 Ach with Success - It is a Very Volatile Me-
 dicine its effects are but short the dose should
 be a frequently repeated - -

Ol. Succin British & Harlem Oil has
 been Applyed as Antispasmodics External
 ly with Success they have been Used with
 success in the Tooth Ach. &c -

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Camphire. Natural History It is a
Substance sui Generis It bears some affinity
to Essential Oil It is Soluble in Alcoh.
It differs from Essential Oil in being
always solid It cannot be decomposed
by distillation It differs from Essential
Oils in not Effervescing with Acids The
Plant that Camphire is obtained from
grows Spontaneous in every part of China
It is a species of the Laural It comes
near in smell and sensible Qualities to
our Bay Berries Camphire is of a Volatile
Penetrating and Inflammable Nature
It imparts a heat to the Fauces & Stomach
&c It has in this account I thought to
be Stimulant - - -

Lect. 35

^{supposes}
(Camphire) Doct. Trallus & Haller & that the
Camphire dissolves the Blood and by that
means brings on Procopiation they say
that People become thin And Emaciated
from the Use of Camphire - But if we con-
sider the small Quantity that is taken
and Undergoes the Action of the digestive
Organs and then mixed with such a large
Quantity of fluids it would be absurd to
say that It acted By Dissolving the Blood
some say it is most effectual Combined ^{the}
Opium

Opiv - The Penetrating Quality of Camphire
 here is proved by several Experiments. A
 Solution of it was emitted by an Application
 The Legs of a Frog was macerated in a Solu-
 tion of Camphire by Doct. Monro. and then
 Macerated in Sp. Vin & it smelt strong of
 the Camphire - It does not act as diapho-
 retic by its Stimulating Quality - As An-
 tispasmodic Lepas spasm on the Ex-
 treme Vessels by this means produce
 sweat Camphor being an Antispasmodic
 it certainly must act in this Manner
 Camphire is ^{in all Cases} of the ^{more} antispasmodic
 are Indicated - Doct. Pringle has made
 many experiments to prove the Antispi-
 tic ^{and} shows that gr.ij would keep
 Meat from Putrefaction longer than gr.60
 of Common Salt but his Experiments
 has ^{not} been repeated often enough to draw
 a Conclusion but experiments made by
 other People since him prove that it does
 Preserve animal Substances from Putrefac-
 tion when living or dead the Pure Action
 of Camphire is upon the Nerves of the
 Stomach - tho it resists Putrefaction it
 has no the Power of taking it off -
 Diseases in which Camphor is Indicated
 It has been recommended as a Usefull Medicine

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in Hysteria Disease & When these are
purely Spasmodic the Camphor Certainly
is of Use. It has also been Used with
Success in Maniacal Cases Camphor has
likewise been Used in Epilepsy the per-
haps it is not indicated in one case out of
ten It has been frequently and generally
Used in fever Some recommend it in eve-
ry Species of Fever while others confine
it to Putrid fevers it has also been re-
commended in Nervous fever Camphor has
been given with Success in Puerperal
Fever in the Erupetals it is of the G-
reatest Success it has also been given
with benefit in Pleurisy & Peripneumonia
In All External Inflammations It
is of Use in the Stopping of the Menstrua
is owing to spasm As it is found to be of
service in Inflammation I should think
it would be of Use in the Gonorrhoea In the
Hypochondriac disease it has been of service
combined with Opium - from what has
been said it evidently appears to be an
Antispasmodic The Dose ought to be ʒss or
ʒss. Mostly combined it with Fort emetics
with Nithrid or Opium when used in
the Dysentery Camphor when given In-
ternally should always be very finely
Powdered

Powdered or it is apt to float in the fluids of the Stomach and irritate the upper mouth of the Stomach -

Those Medicines which act on the fluids - Medicines as well as diet Effects the Blood which may proved by Children Sucking Nurses under a course of Medicines and being affected with it Medicines the Nurses had taken -

Atenuants by this I mean those Medicines which correct the too great Lentor or Viscosity of the fluids - The Principle Atenuant is

Water when taken Cold into the Stomach it Stimulates it Promotes digestion & assists the solution of the Aliment. It restores the determination of the fluids to the Skin It is hurtfull in all Inflammatory disorders but is of the utmost Use in Obstructions and Putrid it Refreshes the fatigued Body &c -

Warm Water is directly opposite to Cold it relaxes the Stomach and of consequence the Whole System It acts as a diluent They both have the same effects after they reach the Intestines
they

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they stimulate the Intestines by their Bulk and remove from them all Stagnant Matter. It should be swallowed in Large Quantities to have this Effect. I have chiefly ordered a Pint of Cold Water every Morning in Hypochondriacal Cases &c. It has a Considerable Effect in the Viscera by its bulk it stimulates them and increases the different Secretions. Water is perhaps the only attenuant Alkalies have been by Physicians employed as Attenuants but they appear to me to have little of that Effect so they meet with an Acid in the Stomach they will become Neutralized. If they are in a Caustic State they are rendered mild by the Fixed Air that is extracted from the Aliment the Produce thereof by their action on the Solids -

2 Lims in the form of the Stone is very similar to that of the Urine. Lime Water has frequently cured the Fluor Albus it has been given with Success in the Chronic Dysentery. If it should Gripes it should be combined with Mith. It has also been recommended with Success in Scroph.

Scrophulous complaints it is necessary
in this case to combine it with large
Quantities of Milk It has also been re-
commended in low intermitting fevers
in ^{the} Hypochondriac Disease ^{it has been}
found of great success - The Limb Water
in all bad conditioned Ulcers. When com-
bined with Ol. Amygdal is a good Appli-
cation in Scalds & Burns. Corrosive
Sublimate dissolved in Lime Water for-
ms Aqua Phagaderica - -

Soap is a combination of Oil and an Al-
kaline Salt it is very often employed
in Medicine and has been called an At-
tenuant Soap has been employed in Ob-
structions of the Uterus when given in a
large quantity it purges - Water in ^{an}
Soap has been dissolved was supposed to
be more effectual in obviating the
effects of Poison than Pure Water - It
has been recommended in what is called
Glutinosa Spontaneous when combin-
ed with bitters and Tonics - Soap
has sometimes been prescribed in the
acidity of the Prima Viæ It has also
been

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been recommended in Calcaneous Complaints
when taken to the dose of half an ^{3rd} Ounce
per Day - Fluxham supposes that Soap
taken in Large Quantities favours the
commencing on of the Consumption in
those that are predisposed to this Com-
plaint - Soap dissolved in is
one of the Best applications to in-
durations of the breast & If it is di-
solved in a proper Menstruum it is
one of the best Medicines to Inject in-
to Scurvy's Ulcers - -

Lect^r 36th

Inspissantia are such Remedies as
give the fluids a proper consistence w^{ch}
they are too thin a State but whether any
Medicines have this Effect is doubtful
Demulcents are such Medicines as de-
fend the parts from Acrimony these are -
1st Gum Arabic is one of the Most
Pure and Simple Mucilages it is indi-
cated in all thin and Acid Reflux-
ions such as Catarrhs, Gonorrhoea &c
it may be United with Olemiz with
benefit - - - - -

2^d *Tragacanth* is of the same Nature as *Gum Arabic*. It is of Use in all Hemorrhages owing to Irritation by drinking quantities of water with it dissolved in it acts by sheathing & Acrimony and taking of Irritation and by this means removing the Hemorrhage— —

Ichthycolla agrees much with the Gums in its qualities It is an animal Mucus and is more Nutritious than the Gums it is not so good as the gums in dysentery it is liable to become rancid & act as a Stomachulps— &c— —

The next Class of Medicines are the Antacida they are said to prevent Acidity from forming in the Stomach but it is generally known never to Prevail Beyond the Intestines and but seldom beyond the Stomach there is in some cases when the Stomach is Scirrhus or debilitated an Acid Produced nearly as strong as any of the Mineral Acids — The medicines made
not

use of as Antacids are 1st Absorbents
these are Magnesia: Gabs Eyes & Chalk
Chalk perhaps is as good as any of
them they have no other effect then
they absorb the Acid and remove it
for the Present Time - whenever
there is flatulency in the Stomach
Magnesia is improper - - -

Ertines are such Medicines as Stimu-
late the inner membrane of the Nose &
excite sneezing - they may sometimes be
of Use in particular affections of the
head - the Ertines chiefly employ'd
are Turpith Mineral Acarum and
Tobacco - by stimulating the Mem-
brane and exciting a flow of Mucus
they may be of Use in proportion to
the discharge - Habit destroys the
Effects of Ertines - Persons strong-
ly accustomed to the Use of Tobacco is
sooner down a Meal than miss the
Pipe people often smoke and snee
when they are not the least affected
with it these ^{facts} are made more per-
ceptible and obvious to shew that
the most pernicious matters may
become.

become habitual & the Stimulated the
Stimulate the Salivary Glands and pro-
motes both Secretion and Excretion.
There cannot much be said on the Practice
of Smoking and Chewing Tobacco. It
is an Indelicate one and must prove
hurtfull to delicate habits by its
Narcotic Quality

Asarabacca

Surpette Mineral is the Most acrid
of this Class and should be used with
great caution — *Erythra* has been used
in Aphoria especially that Species of it
that is denominated *Serosa* — but this
is a dangerous method may by pour-
ing the Blood so Violently into the Ves-
sels of the Brain endanger a Rupture

Expectorantia are those medicines
which increase the discharge of Mucus
from the Lungs. Expectorants as they
stimulate the Secretory Vessels and in-
crease

increase the Excretion of Mucus in
 the Lungs they must be of Precarious
 effect in some diseases of the Breast
 The Chief expectorants made use of in
 Medicine are Glyster Ground Ivy Pe-
 rony Royal then act by stimulating
 the Lungs and must in some cases be
 Precarious. Elecampane is still more
 of a Stimulus & Squills are are still
 more acrid and disagreeable Pectorals
 are given in every affection of the breast
 The diseases of the breast are all brot
 under 3 heads namely inflammation
 Obstruction & Spasm in all these Ca-
 ses expectoration produces the best
 solution of the disease in 1 Inflam-
 mation in Peripneumonia Pleurisy &
 Consumption the Cure is to depend
 upon the proper Use of the Antiphlo-
 gistic regimen Pectorals in this Case
 is precarious expectoration is best
 produced by small doses of Tart Emul:
 Syrups and Oily emulsions may Pa-
 llate the Expectorants but adds nothing
 to the Cure of the disease in some ca-
 ses

cases the cough is so violent ~~is~~ ab-
 solutely to require Remedies to remove
 it which may be done by Muci-
 laginous Emulsions &c - - Obstructi-
 ons are Scrophulous Tubercles & Mucous
 Scrophulous may have their seat in
 the Lungs as well as in any part
 of the Body and is to be treated in the
 same manner by Mercurial Proportions
 Mineral Water and Lecitha -
 Te ^{Coaltar Root} Lupulago has been Used with success
 in the Consumption by Doct. Cullen
 Consumption from Tubercles is the
 most common & dangerous - If any
 of the disorders of the Lungs may be
 cured by Expectorants it is that oc-
 cationed by Mucus - in Spasmo-
 dic affections of the Lungs the Anti-
 spasmodic is only of Use and Par-
 ticularly Opium ^{which must be} combined with Squills
 to obviate the Bad effects of Opium - a
 Mixture of this sort may be of good
 effects in the last stage of Pleurisy &
 Consumption - - -
 Salagogogues such Substances as in-
 crease

creas the Secretion of Saliva No
Medicinis Posses this Quality when
taken Internally but Mercury. -

Mercury its action depends intirely
on its Stimulating Quality During
the Most Copious Use of Mercury in-
ternally it is not found to have
any other effect then might be ex-
pected from its Stimulating Qua-
lity It acts on the Intestines & Its
chief action is on the Salivary Glands
& is the Principle Medicine of this
effect. mercury acts upon the Sto-
mach when any of the Acid Pre-
paration is given but on the In-
testines when a mild one is given
but both acid and mild Pass
into the blood sometimes the Acid
stimulates the excretories of the Skin
the mild passes off by the Salivary
Glands Its effects depends upon a
Chemical Action or Property a Stim-
ulus of any kind applied to the
Salivary Glands would have the same
effect as the Mercury - an Emet. of
Viperula

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Turpeth Mineral Produces a slight
salivation by passing over them and
stimulating them the saliva that
flows from a Patient under a Sali-
vation has a Very disagreeable fetid
smell the Fumes of Mercury applied
to the Nerves produces Torpor Palsy
&c this occurs but seldom then their
effects is entirely Narcotic

Its Use in diseases and first, in
Venereal Disease this is divided in-
to two species the Gonorrhoea &
Confirmed Lues - & First of the
Gonorrhoea is a Local disease Confi-
ned entirely to the Urethra & sel-
dom extending as far as the Pro-
state Gland and without Ulcers in
any part so that Mercury in this
Case can be of little Service The Me-
thod I find to be mostly effectual is
a solution of the Caustic Alkali In-
jected into the Urethra in the Very
first stage of the disease before the In-
flammation comes on in the com-
mon method we order the Antiphlo-
gistic

gistic regimen and sometimes Bleeding Injections of Oil & Mercurial Ointment dissolved in oil & Acid Purgatives should never be given. It is necessary to keep the Body open. Oil Riciini Fomentation of warm water to the part when the Ardor Urine is Violent it will also alleviate the Cordic Sphical bleeding to the Part may sometimes contribute to remove the Inflammation when the Inflammation is gone the Gleet may be remedied by the solution of Vitriol Alb. injected into the Urethra the Patient to drink quantities of Mild Liquors such as Milk &c. in my own practice I have dropped the Use of Injections but rely upon the Antiphlogistic Method —

Lect. ~~26~~^r. 37th

Of the Confirmed Lues or Pox there are instances of its being in the habit without shewing its effects and Children has been infected by a Sperm in which the disease never shewed any effects — When it appears with
Buboes.

Buboes Spots or Eruptions in the
 the Skin Pains in the head. What
 is always more violent when the
 Body is heated Pustles appear on
 the Skin of a yellow colour Ulcers
 on the Palumetis & Palate Loss of sight
 difficulty of hearing - In this case
 the Mercury has been a sensible
 Remedy upon the whole the Most
 simple the Preparations of Mercury
 is the Best tho sometimes the Acid
 Preparations will cure the Disease
 If the disease is chiefly seated in y^e
 exterior Parts the Acid Preparations
 are the best but if some of the In-
 ternal parts is affected the Mild
 Preparations is to be preferred a Sa-
 livation produced by Sublimat^e
 is always more violent than w^h
 it is produced by a Mild Prepara-
 tion if Sublimat^e is combined with
 opium it determines More effec-
 tually to the surface and is of great
 service then when given in its
 simple

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supple Haler. Alkaline Salt is a
remedy when too much Sublimat^e
is swallowed so that if we mix Soap
or Alkali to corros Sublimat^e it would
destroy the effects. We should always
avoid Salivation as it is a very disagreeable
companion. Salivation is only a Cri-
terion to know when the Mercury is
received into the Halit we should
always use the Warm bath to di-
termine to the Skin -- when there
Buboes Mercurial Friction about 2
inches below the buboes should be ap-
plied by applying the ointment below
the Bubo there is greater benefit if
applying it immediately to the part
affected as the Absorbents that take up
the Mercury applyed in this way di-
rectly through the Glands of the Part.
some Physicians say that Buboes ought
to be made to suppurate and by it
means to discharge the Viri but this is
a mistaken notion for by bringing
a buboe to suppuration there is a
large

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Large Surface of Matter exposed to the
Absorbents and must of consequence
retard the Cure — Mercury tho a
sovereign remedy in the Venereal D.^o
is not the only one the Lisbon Diet
drink has been known to cure the
disease & there are a great many Roots
in this Country that has in number-
less Cases cured this disorder There is
a species of the Lobelia that has been
known ~~to~~ to cure the Pox the Method
of Using it is to take about 6 of the
Plants wash them clean then Boil them
in 3liij of Water and let the Patient take
a Large draught every morning and to
drink it throughout the day for his com-
mon drink the Ulcers are also to be wash-
ed in this decoction if the disease is
obstinate they commonly add a few
Roots of the Ranunculus which will
both Vomit & Purge and if what has
been said can be relied upon can we
not say that there are medicines ^{in the Vegetable kingdom} as
effectual in the cure of the Venereal
Disease

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Disease as Mercury - Mercury has been highly recommended in the Cure of the Bite of a Mad Dog & its Use in this case has been confirmed

Mercury given internally and apply'd externally may in some cases ^{Remove} ~~prevent~~ the Hydrophobia it ought to be apply'd early in the bite and continued till till a Salivation ensues - But from Late observations made by Doct. Jⁿ Fisher gill proves that neither mercury nor any other Remedy is a certain Cure in this disease Whether the Caustic Alkali will cure this disease or not is yet to be determined - Mercury has been employ'd in all kinds of obstructions and Sores - with success in Schirrhus obstruction of the Viscera - it has been attended with the best effects - Mercury is almost effectual Remedy in Chronic ^{Suppurations} ~~affections~~ of the Liver and in all old foul Ulcers and Sores Crude Mercury has been recommended too in some particular obstructions of the Viscera

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Vivra given to the quantity of 2 or 3
Pounds at a dose, but this is a Pre-
carious method - Mercury is also
attend with the best effects in a di-
sorder known by the name of the Yaws

The Yaws is a disease that resembles
the Venereal Disease very much but
is a very different disease from the
Venereal

The Patient first complains of a pain
in his throat difficulty of Swallowing
Dry mouth swelling under the Lower
Jaw Sores at the Root of the Tongue as
extend down the throat Ulcers all over
the Skin sometimes the Mouth, and Thro-
at is only effected at other times there
is only a swelling in the Groin &c
sometimes the Patient feels Nocturnal
Pains which shew that it is of great
affinity to the Venereal Disease - The
Yaws are more infectious than the Fox
Bubbe
The same method of treatment is to be
followed in the Yaws as was directed in
the Venereal Disease - - -

The Herpes Doct: Cullen has treated it
disease under the head of Erythema Tho-
chialis

Trachialis it is particularly incident to Children it seldom attacks them after the 7th or 8th Year of their Age. It chiefly attacks those that appear to be of the Best constitution — the Children first become drowsy and heavy, a little hoarseness the Pulse quick, flushing in the face soreness at the upper end of the Trachea. this way the Patient continues two or 3 days when all the Symptoms become more Violent.

The Symptoms mostly remit & return with redoubled Violence and the Patient is in danger of being suffocated the Patient appears so easy during the Remission as to flatter himself that he is perfectly free from the disease but there is still a difficulty of Breathing we are never to consider the disease as Cured till all the Symptoms disappear —

Appearance on dissection after Death in some cases there is a Quantity of Mucus

Mucus stopping up the Trachea and in other cases this Mucus is hardened into a membrane that stretches across the Trachea the Cause of this disease is a White Thick membranous Crust surrounding and stopping up the Passage entirely This Membrane is of such a Texture that it may be Macerated in Water two or three days without being softened - We shall now inquire how this membrane comes to be formed we know all Young Animals Abound with Mucus to supply the various Wastes of the Body

The Proximate cause of this disease is a too great secretion of Mucus in the Trachea the thinner parts being eased off by Respiration the Remainder becomes thick and solid & forms that membrane that is discovered after dissection - Some have supposed it to be occasioned by Spasmodic disease but that this is not its case appears from several Arguments

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While spasmodic affections of the Lungs
is always preceded by or accompanied th
a discharge of limpid Urine but this
is not the Case in the Hives In spas-
modic affections of the Lungs the Vo-
ice is not affected but in the Hives it
is one of the Pathognomonic Symptoms
The Hives is always accompanied by a
flow of a large quantity of Mucus the
spasmodic affection Never and lastly
we conclude that it is not Spasmodic
the Predisposing cause a Robust habit of
Body and the Exciting or occasional Cause
is any thing that relaxes the Secretory
Organs The hoarseness &c is owing to a
collection of Mucus in the Trachea &
Mucus obstructing in the Lungs ac-
counts for the difficulty of Breathing
Red face &c -----
The disease to be divided into 2 Stages
1st

2 when we see that the Breathing is ^{not}

very difficult the Pulse full &c we may not be much Alarmed the first favorable Symptom is the Cough becoming strong - - -

Bleeding is very seldom to be Used, Blisters is not of great benefit Vomits has been given in this disease but they are not of so much Use as has been assigned to them the Increase the Secretion of mucus in the Trachea and cannot produce the good effects Ascribed to them Purges are of more service by far than Vomits the Stimulate the Intestines and divert the Mucus from the Trachea - Calomel is the Best Medicine yet known in the Cure of this disease it ought to be given in large doses and frequently repeated but ^{as} the membrane is perfectly formed Remedies of this kind is too late except it can be brought away entirely ^{or} may be done which may be done by vomiting coughing and Broncho-tomy

28th

Bronchotomy Sartorius has been gi-
ven with success to excite vomiting -
Long Symples has been applied with suc-
cess to excite Coughing — —

Lect.^r 30th

Emetics and in the first place of the
Preparations of Antimony whose chief ac-
tion is an Emetic tho' it may be said
to be cathartic Diaphoretic and Diuret-
ic It is divided into Crude & Regulus
Its efficacy all depends upon the Regulus
this Regulus cannot act on the Human
Body before it is converted into a Saline
Preparation — In the Crude Antimo-
ny the Sulphur is not to be acted up-
on by our fluids and is in some cases
entirely inert It may in some
cases be efficacious tho' it is a doubt-
ful Remedy when we Use the Crude
Antimony we should Always prefer
the Tops of the Cones as they contain
more of the Regulus than any other part
Emet

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Ven Emetic and Tart Emetic is the
Antimony combined with the Vegetable
Acids Tart Emet is to be preferred as it
will answer in any case where Antimony
is indicated — The Preparations of this
decide has been made Use of in many di-
seases — Antimony has no action upon
the Fluids but is entire confined to the
Solids It acts as a Stimulus on the
Stomach but this is not the Only part
that Antimony acts upon it Passes
through the Pylorus into the Intestines
and there acts as a Cathartic Physicians
have long been trying to obtain a Pre-
paration whose action was confined en-
tirely to the Intestines but to no pur-
pose Its chief action is on the Stomach
and is from thence communicated over the
Whole System I have intend to have
its purgative effects without the Emetic
it should always be given in small doses
The Saline Preparations of Antimony
if given in solution acts as an Emetic
sooner than when given in any other
form it procure Sudorific from ~~the~~ ^{the} con-
cent of the Stomach with other parts of

of the Body It may also in some Cases prove diuretic The Butter of Antimony combined with Sal Ammon act as a Diuretic Some of the Preparations has been supposed Expecto- rant and particularly the Mucus Mucral but it will not excite Expectoration any more than what might be expected from a common Emetic -

Diseases in which Antimony is Indicated] The Chief effect produced by it depends upon its Emetic Virtue Vomits constitute a great part of the Modern Practice - This Medicine has been always recommended as a febrifuge & too much cannot be said in its favor as good medicine in fever Physicians thought that it cured fever by its evacuating Quality But this is erroneous for we find fevers in some cases cured without any evacuation as for instance in the Rheumatism and other Inflammatory fevers I have shown you before that medicine may prove Antispasmodic and Diaphoretic merely by its action on the Stomach when the Sweat
 7 Breaks

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out in consequence of taking antimo-
ny it mostly continues 2 or 3 hours the
Pulse at first becomes quick and if there
^{is a} delirium it is augmented but after the
Sweat begins to flow the Pulse becomes
slower and the Delirium relieved this
is its operation in continual fevers
It ought always to be given in Quan-
tities sufficient to excite Nausea or a
small degree of Vomiting when we want
its Sudorific Effects—Antimonial Pre-
parations is sometimes given in Inter-
mitting fevers with success it ought
always to be given before the Paroxysm
it relieves or puts off the Symptoms &
brings an irregular intermittent to a
regular type we may in this case give
it either in Solution or Substance Tart
Emet is not the only preparation of An-
timony that is used for this purpose
all the Preparations answers the same
purpose but in a different degree
I have frequently seen James's Powder
given with success in the Hospitals in
Edinburgh but sometimes it failed of
producing

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producing its effects if It meets ^{the} an Acid in the Stomach it acts Violently but ^{if} it does not meet with this Acid it is of little or no effect. Tart emet is certainly more Sure and effectual (The Celebrated Riverius made Use of a Medicine which is at this ^{time} known by the name of Antiquarium Riverius its antimony combined with a certain proportion of Mercury) this is a Valuable medicine in the Bilious Fever especially if it Purges - The Celebrated Do^r Huxham prefers the Antimonial Wine to any of the ^{other} Preparations of Antimony but this is certainly a more uncertain Preparation than Tart Emet as there is a great difference with regard to the Sourness of the Wine employed in making the Vin Antimonii so I think I may conclude that Tart Emet is the Best Preparation of Antimony now in Use - Antimonial Preparations has been Recommended of dysentery these ^{were supposed} depend upon its effects as an Emetic & Purgative but ^{these}

these do not depend upon their E-
 metiv Power but the Cure sometimes
 depends upon their Diaphoretic Vir-
 tue - The Sagacious Sydenham said
 the dysentery was a fever thrown
 upon the Bowels - for what is more
 frequent when the Perspiration is ob-
 structed for the fluids to be determined
 in upon the Bowels and produce A
 diarrhoea and if this obstructed Perspi-
 ration happens in the Summer a Dys-
 sentery is produced - Doct^r. Waker has
 found the Tart erret more effectual in
 the Cure of dysentery than the Ipecacua-
 na which was supposed to be a Spe-
 fic - Vitrum Antimonium has been
 cryed up for the Cure of this disease but
 it is almost inco~~mb~~able in the ourglic-
 ids and at any rate its effects are more
 doubtfull than Tart Erretis as this Me-
 decine in the dysentery gives a New di-
 termination to the fluids it stands to
 reason it would be of Use in other di-
 seases. The Vitrum Antimonium has
 been

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Ben Used in Hemorrhages of the Uterus
Its use in this case depends upon its
diaphoretic Quality determining to it
skin and taking off the determination
to the Uterus - In Hemorrhages and Dis-
senterys it will be more effectual if
combined with Opium than either of them
single - The Diaphoretic Effects is further
proved by the Various Eruptions of the
skin it is scarcely necessary to mention
that Antimony is one of the Most effectual
Remedys in these Cases but the best
preparations in Eruptions of the skin
are those that is Least apt to Purge as
Antimony does not act on the Fluids
it must certainly in this Case produce
its effects by its action on the Solids
As the Preparations of Antimony has
such Various effects as Emetic Cath-
artic Sudorific &c I think we may con-
sider it as one of the Best Medicines in
our Materia Medica - & I am not under
the Least apprehensions but Children
may

may take it as well as Adults as Children does not bear any Evacuation so well as Vomits There is but one inconvenience that attend the use of Emetics & that is the Weaken the Stomach — — —

Specacuanha is a Root a product of America it has been given with Success in dysentery and has been supposed a Specific in this disease Its action is quicker than that of Tart Emetic and may be used where Speedy Vomiting is Required Doses from 5 to 20 grains — —

Large and seldom draughts of Water is better to work it off than small & Repeated frequently Camomile is preferable to Warm Water — — —

We order Emetics 1.st to prevent fever & to be given in the Beginning of fever 2^d in the Eruptive fever of Small Pox & Measels when there is no topical Inflammation

they are also indicated in intermitting immediately after the Paroxysm the
 French

Physicians direct it in Apoplexy ²⁹³ but
this is a Precarious method After a de-
bauch and an Acid Glyster should be
Administred at the same time when
it is owing to the Stomach being over Load-
ed Pulse weak Breathing hot and diffi-
cult — Emetics are of use in convulsions
occasioned by Worms in the Bowels they
are also indicated when Patients have
swallowed Poison of a Vegetable Na-
ture they should Excite Violent Vomi-
ting after the Vomiting is excited he
should Drink Large Quantities of Wa-
ter Acidulated with Wine Vinegar
But if he has swallowed Arsenic Po-
ison has been improper in this Case
Warm Water Melted Butter Oil &c
should be administred as speedy as
possible to sheath the Specula of
Arsenic — If Corrosive Sublimates is swal-
lowed the Alkaline Salt should be ad-
ministred which will decompose the
Sublimates by uniting with the Muri-
atic ^{Acid} ~~Salts~~ Doct. Robinson has shown
that they are employed with success _{in}

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in Hemopto Physicians have generally
recommended Sea Voyages, but these are thought
to produce their Effects by the Vomiting
occasioned by the Sea Sickness — —

Vomits are improper to those of Weak
ly Constitution they should not be gi-
ven to Hypotonical Patients especially
during the Paroxysm nor are they pro-
per in Violent Agitations of the Mind
Nor during the Menstrual Period
nor in persons disposed to Apoplexy
nor in those who have hernia — —

Lect: ^r 39: th

Cathartics comprise all those substan-
ces that increase the Evacuations by Stool
they evacuate the Contents of the Sto-
mach the Exite the Peristaltic Motion
of the Intestines and invites the Fluids
from other Parts and increase Absorpti-
on and are on this Account of Use in
the dropsy They invite the Blood into
the Descending Aorta and Relieve head Ach
a

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A Long and frequent Use diminishes the
tone of the Intestines They are not of much
use in Inflammatory disorders They by
Irritating the Rectum Produce Piles -

Cathartics is divided into 2 kinds 1 The gen-
tle Laxatives or what are called Ecoprotics
they operate without Stimulating the
Rectum & 2nd Drastics or Stimulating -
Under the head of Gentle are 1 Fruits such
as Tamarinds Prunes &c In Inflam-
matory Cases Gentle Laxatives is Proper
The following decoction is very proper
for that Purpose Brij of Prunes & Tam-
rinds Water Brij and some of the Ex-
press'd Juice of ~~Black~~ ^{Black} Cherries The Next
is manna & Sugar - Manna is little
superior to Sugar and is liable to fer-
mentation in the Stomach Next in Or-
der are all Mild Pland and Express'd Oils
Castor Oil is a most excellent ^{and safe} Laxative
The seed from which the Oil is Express-
ed is an Acid Poison Colic Pictoria
is as I said before generated by Particles
of Lead taken into the Body The Oil
by

by enveloping those Salurnine Particles Generally Cure the Disease Also Generally Safe without being dejected It evacuates the Contents of the Intestines without Irritating In the Hyperic & Hypochondriac disease there is not a Purgative to be compared th to it It is one of the Best in Habitual Continence It is likewise the most effectual and Best Laxative in the Piles Sulph is also a mild Laxative and has been Prescribed in the Piles but is not to be compared to Ol. Ricini Mustard is a good Cathart in Paralytic Complaints Soap is a Laxative but not a certain one. Next in Order of the Mild Purgatives is the Neutral Salts such as Sal: Glauber & Epsom The Common Glauber Salts differs in no other degree from the Epsom than being more Clear and free from Impurities The Irritation from these Salts is confined to the Bowels the have been given in

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in fever and in the Pleur they all possess a Sedative Quality They ought to be given in small doses there is not a Better Medicine in Inflammatory disorders on account of their Sedative Quality Neutral Salts are improper in all flatulent distensions of the Bowels They are likewise improper in Hysteria & Hypochondriac Patients & given in the Laxative frequently Causes an Attack of the Stomach

2nd Acid Purgatives 1st Aloe is a Purgative of a Particular Quality when taken in small Doses it does not Grip. For the Hypochondriac Aloe affords a good Laxative It when taken in large Doses produces the Pile It Stimulates the Rectum which Stimulus is communicated to the Uterus and brings on an Attack of the Menstrues It should always be confined to Menstruation of Bile — The Balsamic Purgative is chiefly indicated in Spasmodic

Cases without fever. —

Rhubarb this is a Valuable drug in some Cases when it is good it is of a Reddish Yellow Colour dry & Brittle & Compact in Shape Resembling a horseradish It should be Variegated Rhubarb has been recommended in dysentery on account of its abstrigent Laxative Quality but it certainly in this Case is of Little Consequence but is of Use in the Diarrhoea & fluxus ^{in the} Albus. ^{Colic} Rhubarb may be employ'd with Sweet Rhubarb Pills or Tincture of Rhubarb is a good medicine Subject to those Subject to Flatulence & Cardialgia & Stomach Peculiarly proper for the disease of Children

Fol: Sennæ: these are of the Acid and Stimulating kind best given in infusion in warm Water with the Addition of Coriander seeds or Orange Peel which covers the smell and taste It is Inferior to most other

other Purgatives

Jalap is the Safest and most Effectual
of the Stimulating kind of Cathartics
It purges without any or Little Stim-
ulus Jalap Acts as a diuretic and is
Used in Dropsical Complaints Thought
in this Case to be combined with Calo-
mel and given in the Early Stages of
the disease — — —

Scammony is the Juice of a Plant
in Cleopatra Pure Scammony is of Light
of a Shining Appearance when Broken
It is of Various Colours Scammony has
been recommended as an Hydragog Vari-
ous methods has been made Use of to
Under this Medicine Milder but with
slight Effect — — —

Diuretics) by Quercius I mean
those Medicines than increase the dis-
charge of Urine and are indicated in
Dropsies — — —

The Proximate Cause of Dropsies are
various.

either those which depend upon the
 State of the Fluids or those which
 depend upon the State of Solids or
 Vessels and first of those that depend
 upon the State of the fluids the flu-
 ids are liable to be changed by large
 Quantities of Water taken in by w^{ch}
 their bulk is increased & by the stop-
 page of Evacuations or secretions as
 Obstructions of the Urinary passages
 & Obstructed perspiration both of
 which often occur in producing the
 Dropsy the fluids may be increas-
 ed not only by the Quantity of drink
 but by improper assimilation of
 food The Suppression of Excretions
 is not always the Cause but som-
 times the effect of the dropsy par-
 ticularly those of thin Aqueous*
 & another cause may be when the
 * a rupture of a Lymphatic and a
 paralytic affection of the Veins — fluids

fluids are disposed to recede from each other when their bulk is not increased under this head we may include Dropsies arising from profuse Hemorrhages as unnatural discharges from the Uterus or hemorrhoidal Vessels by these long continued Evacuations a large Portion of Red Glanbles is taken off & the Remainder rendered less Viscid Analagous to this is the Dropsy produced by Hydatides Of those Causes that depend upon the State of Solids the first proceeds from a Relaxation & obstruction of the Exhaling Arteries hence the Excretions will be Lessened 2^d another thing that tends to obstruct return of the Venous blood as Ligature Polypic or affections of the Coats of the Veins themselves I once saw a fatal Dropsy produced from a Rupture of one of the Coats of the Jugular Veins The 3^d Cause is Inflammation of the Viscera particularly of the Lungs producing Hydrothorax 4th Cause is obstruction of the Liver

ver producing Ascites & Anasarca 5th

A Venous Plethora is a frequent cause hence it is that old people are so subject to dropsies this may be owing to a want of Power to promote Motion in the Vessels and proper Circulation of the Blood - The last case may also be owing to a diminished absorption hence it is sometimes Relieved by Vomits in 12 or 18 hours a determination to the Skin and Some to the Absorbents being Restored this cause is what produces the Edematous Swelling of the Lower extremities viz by the Venous obstruction of the ascending Blood.

6th the last cause of Dropsy may arise from an Obstruction of the Lymphatics but this seldom happens - -

Cure must be varied according to the Cause therefore no general Indication can be given But whether the disease depend upon the State of the fluids or Solids Diuretics are proper & generally necessary to procure a temporary Relief by meliorating the symptoms till Remedies Adopted to

the Cause may be given towards effecting
 a cure. Evacuations by vomit and Stool
 weaken the Patient more then diuretic
 which last dont always have effect
 but when they do are Salutory of the Dis-
 ease to be employed - of these the Cauti-
 fix or Alkali or Alkaline salt is the
 most Powerfull diuretic now in use
 It of which may be dissolved in 3℥ of a
 decoction of worm wood and Camomile which
 increases its diuretic Quality and tends
 to remove obstructions in the Viscera. Som-
 thing amalgam to this is the Ashes of Broom-
^{the} infusion in Rhinisk Wine has been much
 employed as a diuretic but is nothing better
 then the common Ashes of Oak Wood all
 Emetics and purgatives. Particularly Jal-
 lap & Ipecacuanha by boiling becomes
 strong Diuretic. Snake root in the different
 preparations in which it is used proves
 either Emetic Purgative Diaphoretic or Di-
 uretic and often given in Phlegm in su-
 ch a manner as to produce expectora-
 tion which is the Salutory Crisis of the Com-
 plaint. Mustard, Horse Radish and the different
 kinds of Cresses are perhaps the best diuretics par-
 ticularly in scorbutic patients they may be used in
 infusion but the best Preparation of them is Mustard
 When this is excellent to excite a gentle Stimulus also.

Antiseptics) There are few or none of the Medicines that belong to this Class but what has been Treated off Before. —

Putrid Disorders are all nearly if same in their Nature and Cause and what is said of one may serve for all. The same Cause will in one produce a Putrid fever in another a Angina Maligna and in a third a Dysentery we shall first speak of the Occasional Cause and then of its Proximate. All the Animal Fluids have a tendency to putrefaction and would certainly run into it if it was not prevented by Proper Remedies — The Humors of our Body is more or less Putrescent according to the nature of our Aliment Unsound and Impure food has a tendency to Produce Putrefaction Persons of a Strong habit of Body is more

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liable to be attacked with Putrid di-
seases than those of a thin and Spum
Habitu Violent Exercise may act as an
Occasional Cause Sp. Liquors - food
of difficult Digestion may also act
as an Occasional Cause Exposure to
the Rays of the Sun - While the
Excretions and Secretions are properly
performed the Patient will enjoy
Health but an Obstruction of them
may act as a Remote Cause Persons
warmly bed suddenly exposed to Cold
Evening Dew & Exposure to Cold after
a hot day Particular affections of the
Mind diminishes Respiration Long
continued Watchings Putrid Exhal-
lations - Warm & Moist Air has no
tendency to produce Putrid Fevers
but will occasion Intermittents -
Doct^r. Lind says Sails are more healthy
at sea than they are at Land The
higher the Ships on the Coast of Guinea
the more sickly & Vice Versa From
what

what has been said I think we may
 assert that Moist and Cold will not
 produce Putrid fever without it is
 combined with Putrid Exhalations
 When certain parts of the Earth is o-
 verflowed with Water there is no such
 thing as a Putrid Fermentation take
 Place and the Inhabitants are all
 healthy and at the same time
 those that live by rapid Streams are
 healthy. Those that live near Stag-
 nant Waters are Unhealthy—from
 All these observations I think we may
 conclude that the Proximate Cause of
 Putrid Disorders consists in a Putrid
 ferment taken in or Generated within
 the Body and Converting the fluids
 into its own Nature ——— Some
 People have doubted whether Putrid fe-
 vers are always infectious And to
 me it appears that No person can
 be infected except he is exposed to the
 same

same Occasional Cause — all Putrid di-
 sorders are similar in their and ^{causes}
^{1st Indication} to evacuate the Stomach & Bowels
 2nd We give remedies that resist the
 Putrefactive Tendency 3rd then restore
 Tone to the System — Bleeding should
 never be employed unless we are
 certain of an Inflammatory Diathesis
 Vomets have been used in Putrid di-
 sorders but Doct^r Haller says ^{1st}
 there is a Constant Nausea Present in
 these Cases and that ^{with} ^{the} Vomelic Acid —
 we evacuate the Contents of the Stomach
 without Administering any Emetic
 Stimulating Purgatives should be av-
 voided Decoctions of Sassafras sho^d
 be given to keep the Body open &
 Liment Glysters would be of service
 But we should always guard a-
 gainst a diarrhoea but if this sho^d
 happen Cinamon may be taken
 in small doses but if this should
 fail a small Quantity of Bark &
 Ferrous

Terra Japonica — (Blisters) when there is a topical affection Blisters is of Use as in the Angina Maligna They Irritate the External and by it means Relieve the Internal Parts But I must own that I have not seen the Good Effects that has been Ascribed to them they are said to bring on Gangrene and this is the only objection I have to them —

But to Twist Putrefaction all the Medicines and Drinks directed above should be employed together with the Elixir Vitriol and Bark The Bark should be Used in Large Quantities and as much as the Patient's Stomach will bear if his Stomach will not contain the Bark it should be given Glysters Wine ought also to be employed If the face has a Wild Raving Look the head should be Shaved and washed with Spirit Warm Fomentations is of Use in These Cases — In the Ulcerous
sore

Sore Throat Do^r Fothergill recom-
 mend a gargle to be made the of
 composed of Barley Water Vinegar
 & Honey and should be Injected into
 the throat - In Putrid fevers Cold drinks
 may be Allowed Persons Labouring
 under a Putrid ^{disease} mostly have a g-
 reat aversion to food but they should
 always be forced to take some Nour-
 ishment as it will Produce a
 fermentation in the Stomach and
 correct Putrefaction All Life fruits
 should be Used -

His Linen and Bed Cloths should
 be changed He should take a few
 doses of Rhei Gentle Exercise should
 be made the Cold Bath &c -

Blisters or Epispastics by Epi-
 pastics are to be Understood those
 substances which increase the Action
 of the Vessels in those Parts of the Sur-
 face of the Body to which they are
 applied

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applied in such a manner as to produce an Afflux of fluids there

From the Use of Epispastic Medicines the following direct effects are produced 1st they excite Pain 2^d they increase the Quantity of fluids circulating through the part to which they are applied 3rd they produce a discharge in the form of Serous ^{ex}udation in the form of Pus

The Changes induced in the System from the Primary effects of Epispastics are 1st attention to the Sensation of Pain Excited by the Application of Epispastics 2nd an Increased excitement in the Nervous Energy throughout the System in general 3rd an uncommon determination of Blood to the Part particularly acted upon 4th a diminution of the Quantity of Blood passing through the Blood Vessels of the Neighbourhood of those in which the flow of Blood is increased & A Permanent change in the Mode of Circulation A diminution in the Quantity of circulating fluids
(And)

And a particular Denomination of the
serous part of the Blood —

The different articles referred to the
Class of Epispastics may be distri-
buted into the three following orders

1st Epispastica Rubefacientia as Ex-
amples of which may be mentioned
Senapii Volatile Alkali

2nd Epispastica Vesicantia (Cantharidin

3rd Epispastica Suppurantia such
as Issues and Setons —

The Indications w^{ch} Epispastics is Ca-
pable of fulfilling may be derive
from the three following sources

1st from their Acting on the Nervous
energy —

a To diminish Violent Pains b To take off
the Effects of Uncommon Sensibility
c To Remove Torpor —

2nd From their Altering the Balance of
Circulation Hence they be employed

a To diminish the Impetus of Blood
against any part Morbidly affected

b To diminish a Morbid Increase in
action of Vessels in the Neighbour-
hood of those to which they are Apply

3^d From their Producing evacuation
hence they may be employed

a To diminish the Quantity of Circulating fluids when too great for ^{the} state of the system at that time

b To evacuate morbid accumulations of Serum —

These Indications may be confirmed and Illustrated from Practical observations concerning the Use of Epispastics in cases of Tooth Ach, Haemorrhagy, Apoplexy Ophthalmia Hepatitis and Hydrocephalus —

The Principal circumstances respecting the Choice of Orders in the Class of Epispastics may be deduced from the following observations concerning each — —

I Epispastica Rubefacientia The Individuals referred to this Order from their nature are not extensively applicable to answer the Purposes for ^{the} which the Class may be employed They are fitted to fulfill some Indications from an action on the Nervous system ^{and}

are Preferable to other Epispastica for the Removal of Torpor when suddenly required they may also sometimes be employed to fulfill Indications as changing the Mode of Circulation but they are rarely with this Intention preferable to the other orders - From the degree of effect they produce they are applicable to those cases where slight and transitory Changes are Wanted - The Constitutions to which they are principally adapted ~~are~~ dry Spasmodic those which would be hurt by any degree of Evacuation & those much debilitated by long continued diseases - - - - -

2nd Epispastica Vesicantia The Individuals belonging to this Order are from their nature adapted for all ^{the} Indications to be answered by ^{it} (also they are particularly preferable to all others where evacuation is suddenly wanted - from the degree of Effect ^{it} Produce they may be employed where _{the}

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where the highest changes are required they will scarce admit of being adapted to those cases where slight changes only are proper. The Constitutions to which this order of Epispastics are chiefly adapted are the Scrum for Phlegmatic those in the Prime of life and those who are affected with acute diseases —

3^d Epispastica Aspirantia The Individuals referred to this order are from their Nature adapted to fulfill those indications which may be answered by a Change in the determination of the Blood they are frequently of remarkable Service for diminishing the Impetus of the Blood in parts morbidly affected They may also be used with advantage to diminish the Morbid of Action in neighbouring Vessels if a considerable effect be not suddenly required They may be used likewise for some purposes

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how to be answered by evacuation. They
are not adapted to diminish the Quantity
of circulating fluid. But they may be of
service for evacuating serious Accumula-
tions they are chiefly of Use for this pur-
pose when they are deep seated or in
their nature such that they cannot be
easily acted upon the Constitutions to
which they are adapted in preference
to other Epispastics are the Aged the
Irritable and those Labouring under
Chronic Complaints —

The cautions to be observed in the Employ-
ment of Epispastics as deduced from
their nature chiefly respect the Pain
which is occasioned by their Action
especially when that has no tendency
to remove the complaints against ^{the} which
they are used. The Inflammation they
excite in a part to which they are ap-
plied. And the Gangrene which is
a frequent attendant of their Opera-
tion, the Conditions of the System ^{th.} which
chiefly require attention in their
employ

employment are the female Sex Lax
and Phlegmatic habits The Circum-
stances chiefly to be observed with
regard to the Regimen necessary during
the (Crisis) respect the accommodation
of the Diet and temperature to the di-
sease of the Patient the Use of demulcents
and diluents and the Length of the Ap-
plication of the order of Viscantia The
treatment of the Part after they are re-
moved and the continuance of spi-
ritic Applications when the order
of suppurantia are employed—

The different individuals belong-
ing to this Class of Medicines are
chiefly contra-indicated by the
presence of the following morbid
States a high degree of irritability
in the System in general Morbid
thapsitude of the Blood or a general
immaduration of the fluids—

Blisters are of Use in fevers accompa-
nied with head ach & particularly
Corria Tord Phlegmy ~~adum~~ & Peripneum
mony

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among when the Pulse has been re-
duced by bleeding Blisters are of the
Utmost Use They are of little use
in the beginning of a Continual Fe-
ver When there is a Subtler's Ten-
dency and when delirium comes
on slowly they are of No service and
frequently highly injurious They
lessen the pain of an Inflamed Part -
When applied in hepatitis Blisters
lower the Pulse sooner than Bleeding
It was formerly a fashion to apply
Blisters to the ^{Back} but this is very in-
convenient and they are Very diffi-
cult to heal To the head they give
the Least Pain but they should never
be applied here when there are any
Pimples as the Cantharid: will be ab-
sorbed and occasion Strangury They
are at present mostly applied to the
Thighs Legs & Wrists and in this case
seldom produce Strangury Blisters
sometimes produce Tenismus this must
be obviated by drinking large Quantities
of

of Demulcent Drink when a Strangury is produced nothing will remove it so effectually as Laudanum given to the dose of 40 Drops. Commentations to the Ur. Pubis will be of Use in this (are in the Angina Putrida: Blisters to the part affected is attended with the best effects. In the Angina Inflammatoria after Bleeding they are of Use. When the Glands are affected only Gargles are of the greatest benefit - In the Angina Cordalis Wine &c should be made Use of along with Gargle of Decoction of Bark - Blisters are effectual in the Tooth ache. If it proceeds from a Rheumatic Affection. But if the Tooth is decayed and the Pl. Cori-
op: does not relieve the Pain it should be Extracted - In Inflammation of the Eyes Blisters are suitable. In the Sciatica Blisters are of the utmost Service. They should be large &

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Repeated three or four times or kept
open for some time - In a Retrogre-
sion of the Gout. Blisters should be ap-
plied and continued till the Gouty
Paroxysm is over and if the Patient
is plethoric he should loose a qu-
antity of Blood The Blisters should
be applied to the feet

When the Lungs is Loaded with Mucus
Blisters applied between the Shoulders
will be of Service - They are also of
Service in *Colica Trictonem* applied
to the thighs and they are equally
of Service in all Spasmodic Complai-
nts Hemorrhages is also cured by
Blisters which ^{Relief} is owing to their An-
tispaasmodic Quality In Paralytic
affections of the Bladder adunc Epis-
tartin applied to the Os Sacrum gene-
rally Relieves the Complaint -

there also of Use in the Apoplexy

V. 1. 1. 1. 1.

Emmenegogo, It will in this case be proper to explain the Nature and cause of the Menstrus - This Evacuation has got the name of Menstrual flux Menstruo Catamenia & Flowers The Use of this evacuation is to prepare the System for the Nourishment of the foetus as there being a greater Quantity of Blood than is necessary to nourishment of one Person - Some say that this evacuation is owing to the Influence of the Moon but the first Experiment that prove this is not the case is that some have a Return of the Menstru in 20 days after the ^{Preceding} Attait other, 30 days 2^d if this evacuation is owing to the Moon Women ought to have it all at the same time but I dont suppose there is an hour in the Year that there is not some one Menstruating Others say it is owing to a ferment but

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but how could a ferment ^(ie) dormant
in the habit 15 years without pro-
ducing its effects besides fermenta-
tion changes the Quality of the Blood
but it is well known that this is not
the Case Astruc says it is owing to the
peculiar Structure of $\frac{1}{4}$ Uterus But
as dissection has not shown this to
be the Case it cannot be admitted A
General Plethoric state of the System
^{is generally} supported by Haller & Friend to
be the Cause of the Menoes for say they
as a fetus ~~are~~ to be nourished a greater
Quantity of Blood than is necessary for
the Nourishment of herself is formed

but there are many women that are put
to hard Labour that have a Periodical
Return of the Menoes & the Menoes hap-
pen in Girls where there is no degree
of Plethora and taking a few ounces
of

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Blood from a Person that contains from
25 to 30 Pounds & Women labouring Un-
der Diseases and that are much de-
bilitated Menstruates as Usual It
is likewise sometimes necessary to take
away some Blood to bring on Menstrua-
tion — The Menstris according to my
opinion arises from a Plethora of
of Uterus which is Peculiar to the
Sex & as a fetus is to be nourished by
the Vessels of the Uterus it is situa-
ted in a Capacious Pelvis —

About the 14th or 15th Year of the Girls
age the Blood begins to Issue out in
small Quantities and continue ^{at}
in this State 2 or 3 days and when
the Vessels are freed from their Load ^{it}
contract at they succeeding Period the
flow of blood is more quick and the
Vessels are more easily dilated and
^{it}

Paroxysms mostly observes a Regular Period. and those Periodical Returns is accounted from Habit In the same Manner that Periodical Movements are kept Up in other Parts of the Body - The Immediate cause of the menses is a distension of the Uterine Vessels independant of a General Plethora - We Judge of the Approach of the Menses in a girl by the following Signs the Breasts grow tumid there is a pain felt in the Lumbar Region the Legs are affected with Oedematous Swellings there is Loss of Appetite with Paleness of the Countenance these Symptoms occur for two or three of the first Returns of the Menses when they Generally return without Pain or other Troublesome Symptoms & continues untill the 40th 45th or even the 50th Year when they begin to diminish. this is the

most critical Period of a woman's life
 if they survive this they generally are
 less subject to disease after it then
 when at that Age At about 50 they
 generally cease this is owing to the
 Circulation being weaker the fibres
 more rigid and the nerves less sensible
 so that an Accumulation and disten-
 sion of the Vessels do not take Place
 the Inconveniences and danger attend-
 ing a stoppage of this discharge is
 in proportion to the Suddenness

there are not owing to a plethora but
 a change of Balance which the System
 at Length becomes habituated to —

We are next to consider the diseases
 attending this discharge these are di-
 vided into three heads 1.st When it does
 not appear at the proper time 2.nd When
 does appear at the proper time and is
 suppressed 3.rd when it is too copious
 and then may be denominated Hemor-
 rhage

Of the first when at the Age of 14 or 15 Years if the Menses do not appear all the Symptoms Usual at their approach are aggravated and the Patient falls into a Chlorosis the Symptoms of Which are a dullness drowsiness Pale ness lower Eruptions Vomiting of Acids her breathing is Laborious and Difficult with a continual desire for Chalk Coals Ashes or any testaceous substances The Cause is first to be sought for in a fault of the Uterus particularly in a relaxed state of it Our Indications of Cure are first to be strengthened & Increase the Tone of the Solids The 2nd to promote this discharge but caution is necessary as to the manner we must be careful & endeavour to Lead & not to drive Stimulants will be necessary but we must be careful of the Choice of them as an hemorrhage might be occasioned from the Lungs by the Use of

show that are strong & excite the Vigorous action of the heart & Arteries as well as that of the ~~Arteries~~ Nerves If the Situation & circumstances of a Girl will allow she must be removed to the Country ride on horse back use Lactaceous Powders Gentle Purgatives and an Animal diet by this tone will be restored to the system & the Digestion be assisted we may then use Tonic Remedies We here employ the Peruvian Bark & all the preparations of Steel in preference to any other Tonic The Various Mineral Waters may be of service & lastly the Cold bath sh^d be employed to complete the Cure*

The Second disease accompanying the Nerves is a suppression of them This differs from the Case of those where it never had flowed Its Remote Cause is owing to passions of the Mind

* this Course is to be taken with a Girl that has never had the nerves -

as Anger Terror Grief Joy & the like
 to which may be added moist Air a
 too plentiful Use of Acids but the
 particular Cause and what happens
 9 times out of 10 is Cold which they
 are affected with by walking on damp
 floors & washing in Cold water during
 the flow of the Menstrue - The Proximate
 Cause or two the first is Laxity &
Debility of the Solids in general
 and particularly of the Uterus -
 The second Proximate Cause is a Spar-
 modic constriction of the Vessels of
 that organ - By the first viz Laxity
 &c a Languid Circulation is occasion-
 ed the Pulse is Languid & there is a
 want of Force to propell the Blood
 through the Remote Capillary Vessels
 hence it is no wonder that obstruc-
 tion take Place in the Small Vessels
 of the Uterus - The Cure must depend
 upon restoring tone to the Solids In
 the second Bleeding and the Antiphlo-
 gistic

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gistic remedies are indicated by bleeding
we diminish the Quantity of the Fluids
so that if they do not appear we avoid
the Usual Inconveniences of Plethora.
Warm Pediluvium should be made
Use of for a considerable time as it then
by proves a Considerable Stimulus to
the Relaxed Vessels of the Uterus and Pro-
duces an Increased action of the Heart
& Arteries It is also serviceable to ease
the Pains but it would be safer to
Bleed first Warm fomentations should
also be applied to the pubis of the An-
tispasmodics commonly Used in this
Case I prefer Opium I have often known
a good Dose of Laudanum bring on
the discharge immediately when the
most Celebrated Emmenagoges have fail-
ed the Patient should Use a spare diet
& avoid Cold the Remedies should be
Used at the Usual Periods of the dis-
charge when this obstruction and Sup-
pression is owing to debility a differ-
ent Method of Cure will be necessary We

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are then to employ such Remedies as
strengthen the Solids and increase the
impetus of the fluids for this purpose
Emetics are of Use but above all Cathart-
ics We here employ the Gums Castoreil
& Aloes this has a particular Quality
of Stimulating the Rectum and commu-
nicating its effects to the Uterus - Tonics
are used with Stimulants as Mustard
and bark Steel & Bitters of all kinds
will be Usefull Electricity has been known
to produce this discharge almost
instantaneously Exercise Particularly
Riding on horse back is Usefull Mine-
ral Water May be drank - The Diet
should be Light and Nourishing con-
sisting chiefly of animal food with
the Moderate Use of Wine and as soon
as it is safe the Cold Bath will be of
eminent Service when the discharge
ceases at the Usual Period we must
then submit to the Established Laws
of Nature But if it stops Suddenly
the Evils Mentioned in the for-
mer

53.
our part are here to be expected The
Third disorder that I mentioned as at-
tending the Menstrua is when the dis-
charge is too copious and when the pe-
riods return more frequent than usual
the Proximate Causes are first Plethora
second Laxity & the third Irrita-
tion that Plethora can produce too
copious a discharge is not doubted as
well as other Hemorrhages we may
easily tell when the Cause is a pletho-
ra by the hardness strength and full-
ness of the Pulse difficult breathing
& thirst the relaxed state of the Vessels
giving no resistance the Blood easi-
ly bursts their Extremities this Ple-
thora may be owing to an Indolent
life and high living together with
a suppression of the Natural Secre-
tions - the Cause of this Laxity is hard
labour an Indolent life warm ba-
thing weak and watery diet the
Use of Stoves to the feet in Cold Weather
&

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& warm Indolence A third cause is
Irritation occasioning strong Oscillations
of the Vessels of the Uterus whence a greater
quantity of Blood is determined to
that Organ which produces a too fre-
quent and Copious discharge This Irri-
tation may be of two kinds 1.st That
which arises from the Use of Acid Me-
dicines too great a degree of Coition or
Stimulus of Venereal Virus - 2.nd It may
arise from too great a degree of Irritation
in the System in general & of the U-
terus in particular Those hemorrhages
that arise from part of the Placenta
being retained we shall have to speak
of here after As to the Cure of Hemorrhages
from the Uterus if it is owing to
Pléthora we must diminish the Quan-
tity of fluids by bleeding & Gentle Ca-
thartics the Patient should Use a spare
diet cool Air & Rest If from Relaxati-
on first by astringents as the Bark
if these are not sufficient Alum must
be given in substance & Allum Viny-
Cloths

Cloths wet in Cold Water may be ap-
 plied to the Pulse & Pubis if there
 fail Injections of Cold Water or Strong
 decoction of Oak Bark injected Cold
 and thrown into the Uterus the Re-
 turn is to be prevented by the Use of
 gentle Astringents and the drink
 should be Clarret & water moderate
 exercise must be Used as the Pati-
 ent is able to bear It If it is owing
 to Irritation the Cause must be re-
 moved & the Increased Sensibility of
 the Part diminished by the Use of O-
 pium for this purpose Glyster of
 Marsh and Opium may be employ'd
 with Advantage—

Anthelmintics are those Remedies that are intended to destroy worms & expell them from the Body - Tho Worms are not in themselves a disease ^{but} they are the Cause of a Variety of diseases They ought therefore to be removed as quick as possible as they share the Aliment and deprive the body of part of its nourishment - some have supposed that these worms are generated by putrefaction ^{but that is not the case} for we know that the worm is continued in the same manner as an Elephant or a Whale we take the Eggs of the Worms in by our drink and food & we every day of our Lives swallow thousands of these Eggs - but why is not every body affected with Worms

Persons of a Lax habit of Body are most subject to worms and Vice Versa the Robust and Strong less Subject -

There are 4 kinds of worms that affect

the Human body. The first are what
 are called the Ascandies then are White
 and Pointed at Both Extremities they
 are chiefly situated in the Rectum
 & Lumbricales. these resemble the com-
 mon fish worm but are White 1/2 or 3
 Inches long 3rd Seneca or Tape Worm
 these are of considerable Length with
 articulations when the Articulations
 are separated each Piece is called a Jo-
 and Worm which in time becomes a
 perfect tenia or tape worm they in
 this respect resemble the Polypus very
 much for if you cut this Animal in
 as many Pieces as you will every
 piece will become a perfect Polypus
 There are instances of Tape worms of
 100 Yards in Length and it is not Un-
 common to find them from 10 to 100 feet
 long. As are the Ascandies Lumbracoides they
 are of the length of the Round worm but
 they are sharp at both ends - There are
 other worms besides these in some cases
 present in the body but these are Rare

The disorders arising from worms are various as well as numerous. 1st They share the food with the Patient and hence the voracious Appetite 2 they form a Nidus which distends the Intestines in a particular part & a spasmotic contraction of the Parts takes place in consequence this Excrement undergoing Putrefaction Produces diarrhea and they may in some cases penetrate the Abdomen—Worms are Injured by Garlick Sugar-Liquorish Salt Meats &c the Irritate the Bowels and produce griping Borboregmic Diarrhea &c by the Connexion of the Bowelsth other Parts they Produce Palpitation of the heart Epileptic fits Twitching of the Tendons &c & there is not a disease that cannot be imputed to Worms in the Intestines — —

The Symptoms denoting the Presence of Worms are An Unhealthy disagreeable Countenance Blue Ring round the Eyes Itching at the Nose Voracious Appetite When Asleep the Sleep is disturbed

with Twitching the Patient appears as if it was after swallowing in its Sleep Grinding its Teeth Sometimes Hollowing out in its Sleep and lies continually on its stomach In waking in the morning there is fainting takes Place Stinking breath a rumbling noise in the Abdomen and sometimes the Abdomen is Tumorid the Patient is sometimes affected with diarrhea at other times Costive Absence of sucking in the Bowels Irritation in the Rectum tenesmus some become almost Mad others foolish some are attended with convulsions other say Rigid as if the Worms dead and Recover with Convulsions but all those Symptoms does not occur in the same person at the same time - After considering the Symptoms as the attend worms in general we shall Proceed to speak of the Symptoms that attend each in Particular and first of the Tape Worm in this

case there is a sense of Sucking in of
 Bowels attended with motion & Pain
 in one Side Griping but what is
 a sure proof is the Voiding of Hard
 worms — Ascarides their habitation
 being in the Rectum they occasion
 Tenesmus — Remedies for destroy
 and Expell Worms may be divided in
 to 2 kinds 1st Those that act as a Poi-
son and immediately destroy them
 2nd those that make their place of Abode
 disagreeable these are Bitters as Worm-
 wood &c but these will seldom answer
 without having some more powerfull sub-
 stance added to them But Bitters by
 strengthening the Tone of the Intestines
 they may destroy worms and prevent
 a generation of them — Purgatives of ma-
 ny kinds destroy worms 1st by increas-
 ing the Peristaltic motion of the intes-
 tines and carrying off the Worms in a
 manner 2nd by diluting the contents of
 the Intestines and loosening their hold
 then

then they are easily carried off - But
 Purging answers better to carry off the
 Worms after they have been killed by
 other substances - Poisons are divided
 into Mineral & Vegetable Mineral
 are all Saline Substances Acid Al-
 kalis and Neutrals but these will not
 kill worms except they are applied in
 a very concentrated State which can
 not with convenience be done - Sul-
 phure destroy worms of all kinds
 Drinking Large Quantities of water $\frac{1}{4}$
 contains Hepatic Air But they are
 all inferior to either Mercury, Sin,
Copper, Iron Mercury has been given
 in various forms Water has been
 made use of to destroy worms in ^a
 a Quantity of Crude Mercury has been
 boiled but this Preparation will do
 no more service than the same Quan-
 tity of Water would do as the Water
 in which the Ducksilver has been
 boiled has no power of dissolving it in
 it.

crude state some have employed Anti-
thiops mineral but all the good con-
 sequences attending this preparation is
 owing to the Sulfure it contains.
 The Principle and most effectual Pre-
 parations of Mercury are Calomel &
 Mer: Corros Sublimatis calomel may
 be given by itself or combined with
 Purgatives - Corros Sublimatis may be
 given in the form of Pills and there is
 scarcely a Medicine more Powerfull
 than this but it must not be given
 in debilitated and Irritable Intestine
 Preparation of Copper might be a good Me-
 dicine to destroy but they cannot be gi-
 ven in sufficient dose as they excite Vo-
 miting Tin as a Vermifuge has been
 given in powder and was supposed
 by some to act entirely mechanical
 by irritating and grinding the Worm
Tin is liable to be dissolved in the fluids
 of our Stomach and must act as a poi-
 son and not Section. We know it con-
 tains a Quantity of Arsenic to which all
 its effects in destroying worms or ovi-
 ing

³¹⁶
Iron and all its Preparations have been
given for the Cure of Worms and they
are more likely to come to the Intestines
unchanged and Custom, tune to them
The Preparations of Iron that I mostly Use
is the Prepared Steel and Sal Martis If
Prepared Steel Give 5. 10 or 30 grains at
a dose according to the age or constituti-
on of the Patient and Sal Martis 10 or 30
Vegetables have a power of destroying W-
orms out of the Body and I think cannot
fail of having an anthelmintic proper-
ty when taken Internally - All Solid
Plants Garlic applied to the Stomach
Warts &c has been known to expell Worms
from the Body and has the same ef-
fect when taken internally - Pink Root
Spigelia, Bear Foot &c - Carolina Pink
Root is one of the best Vermifuge Medicines
that I have Used but sometimes it has
a Narcotic Quality 12 gr. may be given
in substance Bear foot is one of the
strongest vermifuge medicines that we
are acquainted with it is very power-
full and should be given in small Do-
ses -

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-see - Spigelia grows wild in the
west Indies and is used with success by
the Negro's and Indians they say it is
as effectual in destroying worms as if
Bark is in curing the Intermitting fe-
ver this medicine is as effectual in pro-
ducing sleep as Opium - The external
shell of the common Walnut has been
Recommended in the Cure of Worms &
I think it may be attended with good
Success - Cow-Horn is much recom-
mended for destroying of Worms Its operation
is entirely mechanical, by Irritating the
Worms with its sharp Points kill them
it is commonly administered in Sy-
rup or Molasses - Horse Hair cut fine
has also been given to destroy Worms
it acts in the same manner as Cow-
Horn - Oils were also given to destroy
Worms and were supposed to stop up
the Pore of this Animal which led to
the organs of Respiration but it is
well known that these animals have
no such organs ~~but~~ We know that out-
of the body will live a considerable
time

We have now given the general Metho.
 of Cure but But every species of them
 require a different method of Treatment
 Anacarides are within the reach of Glys-
 ters - Milk & Melapex or Sugar the
 Best for this purpose Gentle Laxatives
 or a Glyster of Quackbiter extingquished
 with Honey may be administered
 In the Round Worm the Medicine ought
 to be administered in the Morning & a-
 bout It is best administered in Milk
 if soon after the Medicine is given he
 feels a Pain & Convulsions it is a Sign
 that they are endeavouring to penetrate
 the Abdomen In this case the Abdo-
 men should be rubbed with Petro-
 leum

The Patient Should take Gentle Laxa-
 tives as the Tincture of Rhubarb or
 Sol Martis is as effectual as any
 But if the Presence of Worms should be
 attended with fever we should Recom-
 mend those medicines that are proper
 for Worms & for the Fever at the same
 time

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time such are the Camphorated Ju-
lip - Worms are frequently destroyed
by Salt taken in Molasses

Tenia or tape Worm this is got clear
off with great difficulty and it some-
times happens that they Elude the Effects
of all Medicines Hung Beef Salt fish &c
has been Prescribed as a Vermifuge the
Sources the Worms to desert the Super-
ior part of the Intestines and go down
to the Lower parts a British Purge of
Jalap then with Large Quantities
of Cold Water will stand a Chance of
expelling them from the Body Cold Wa-
ter will render them Motionless at
some places they give Petroleum and a
Purge immediately after it with suc-
cess in the Removal of the tape Worm
I relieved a gentleman of a Large Sapo-
worm by giving him Prepared Steel
3℥ at a Dose every Morning

The first of these is the
 fact that the population
 of the country is
 increasing rapidly.
 This is due to a number of
 causes, the most important
 of which are the
 following:—
 1. The increase in the
 birth rate.
 2. The decrease in the
 death rate.
 3. The immigration of
 people from other
 countries.
 4. The emigration of
 people to other
 countries.
 5. The increase in the
 life expectancy.
 6. The decrease in the
 infant mortality rate.
 7. The increase in the
 average age of the
 population.
 8. The increase in the
 number of people living
 in towns and cities.
 9. The increase in the
 number of people living
 in the country.
 10. The increase in the
 number of people living
 in the country.

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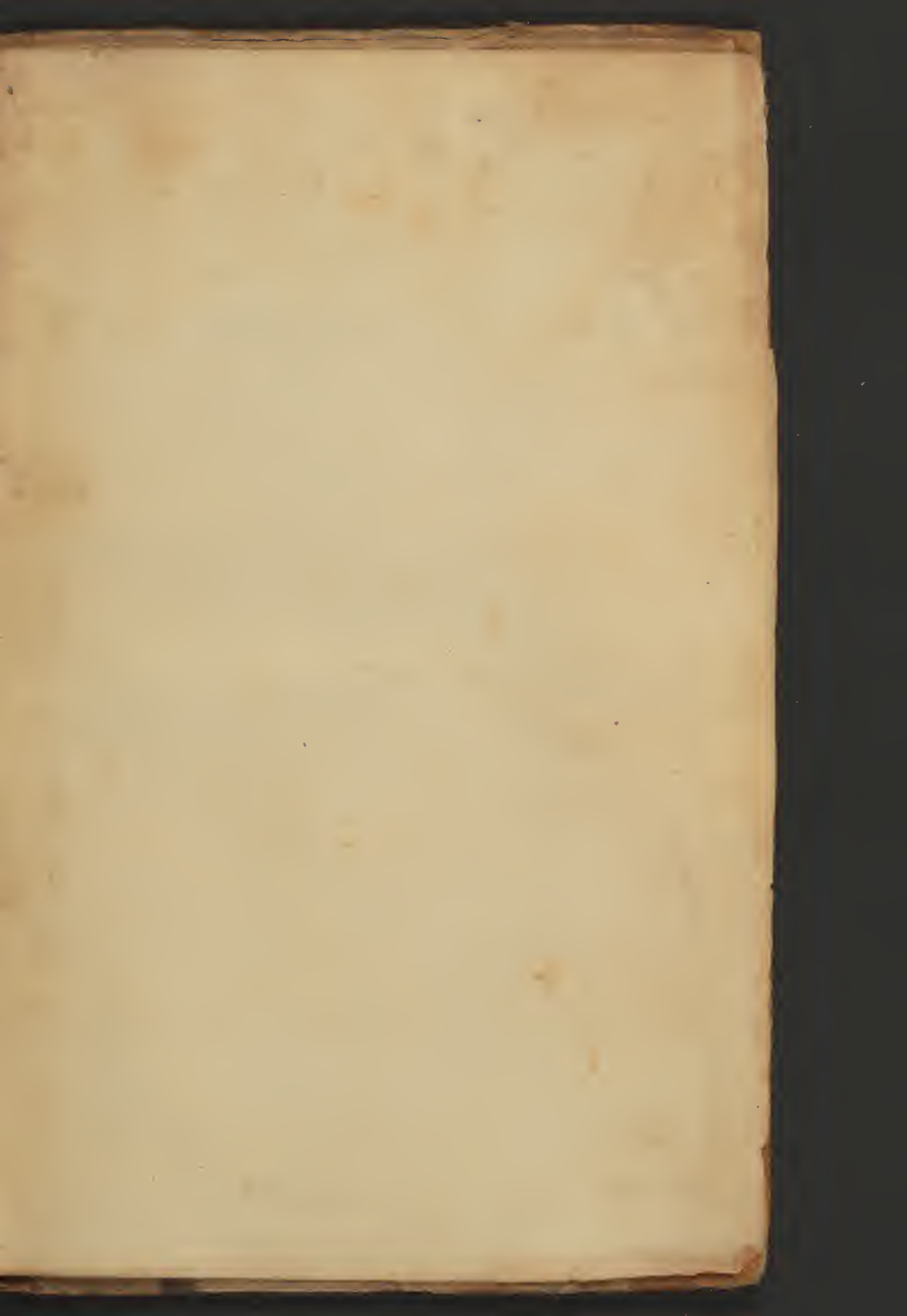
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John W. Mendenhall

1836.

John W. Mendenhall

1836.

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